

BRAKE EQUIPMENT FOR NEW DIESELS

See Advert. Page 11



"THE TIMES" OF THE TRANSPORT WORLD

MULTI-PURPOSE B.R.S. DEPOT AT LOW FELL

See Page 3

VOL. LXXXII No. 2114

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as a newspaper]

LONDON, NOVEMBER 21, 1959

PRICE NINEPENCE

CURRENT TOPICS

Aid to Business Travel

OF great potential value to our power of doing business abroad is an imaginative scheme to enable U.K. business men to arrange travel facilities on credit in any part of the world. Announced last week by Thos. Cook and Son, Limited, the firm that initiated travellers' cheques in 1874, this credit plan is the first available to the U.K. resident business man which embraces all travel services. It restores to him the freedom to travel anywhere in the world at a moment's notice without unnecessary formality or resort to his currency allocation. It will mean an end to the paying of individual bills for such travel services as rail, road, sea and air tickets, hotel accommodation, car hire or any other travel service offered by the local office. The charges for the services provided will be passed back to the United Kingdom for payment in sterling by his firm. There will be no charge for the credit facility, which will be available to all the company's account customers. Armed with a "Cooks Letter of Authority" the executive will be able to obtain credit at any of the 400 branch offices in 57 countries of the Cook-Wagons-Lits organisation, which will cover bookings with 500 railway companies, 700 steamship lines, 200 airlines and the thousands of hotels for which it is agent. Where it is of advantage to use travellers' cheques to gain the premium on official exchange rates in certain countries, users will, of course, be advised. The scheme virtually extends machinery, hitherto somewhat cumbrously available to a few special customers, to all account customers who arrange to take advantage of it and reduces formalities to a minimum. Although most business travellers follow carefully planned itineraries, in which a world-wide travel agency such as Cooks can be of great value to them, the new arrangement enables an unscheduled emergency or a business opportunity calling for an extended detour to be tackled immediately without prior arrangement for tickets and credit; we believe that the new credit facility will be of immeasurable benefit to British trade, as well as to the individual firms using the facility.

L.M. Resignalling Accelerated

THE original plan for the resignalling associated with the electrification of the London Midland Region Western Lines envisaged completion in 10 years. The planning and execution of the work was to be effected in seven consecutive stages. The first ran from Crewe to Manchester and most of it has been completed. It includes route relay interlocking and the use of transistorised remote control equipment for the first time. Other novel features are included such as production of train identification codes on track diagrams. The 25,000-volt 50-cycle single-phase overhead system of electric traction presented entirely new problems in prevention of interference with signalling and telecommunications; this gave rise to much pioneer development work by the L.M. signal engineer's staff and the contractors. As a result of experience gained some modifications have been made which have been incorporated in the entire scheme and provisional approval has been obtained for this work from the Ministry of Transport. Contrary to the impression which might have been gained from certain newspaper reports, the technical staff deserves considerable credit for the work carried out, and for the solution of many problems which will facilitate future conversions. Reappraisal of the L.M. electrification cuts the time for electrifying from Euston to Liverpool and Manchester from 10 years to five. This necessitates the development in the next 18 months of resignalling proposals throughout the whole area, and despite some simplification a considerable increase in the number of technical assistants has been required. Some men are being obtained from other regions, but to ensure completion by the required date a limited number of design staff is being seconded temporarily from overseas, 10 from the Philips organisation in the Netherlands and six from American railways. These men have been concerned in the planning of colour-light signalling schemes in

general, but have had no previous experience of 50-cycle a.c. traction, nor of British traffic conditions. There is no question of us learning anything in this regard from foreign railways, but our overseas friends will assist in getting the job done.

Connection with the Royal Navy

TO commemorate the centenary of the Royal Naval Reserve, No. D812, a Western Region diesel-hydraulic locomotive of the Warship class, was named *The Royal Naval Reserve, 1859-1959* at Paddington Station last week at a ceremony presided over by Mr. R. F. Hanks, chairman of the Western Area Board. The naming ceremony was performed by the First Sea Lord,

of competing with the large manufacturers, to whose customers low first cost was considered more important than low operating costs. There are, however, hopes that the removal of purchase tax and the elimination, or at least the postponement, of the threat of renationalisation will halt the trend to the cheaper class of vehicle; Sir John points out, in particular, that a special-purpose body with a long expectation of life, such as C-licensees are investing in, deserves an equally high-quality trouble-free chassis. Implementing the new policy has meant writing off special tools, jigs and fixtures, and this, with losses on sales, has resulted in an overall loss in the group for 1958-59. As road tests and other appraisals in our columns have shown, there can be no doubt as to the quality or economy

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Admiral Sir Charles Lambe, who was thanked for carrying out the task by Sir Brian Robertson, chairman of the British Transport Commission. Others present included Mr. K. W. C. Grand, member, British Transport Commission; Mr. John Ryan, member, Western Area Board, B.T.C.; Mr. J. R. Hammond, general manager, Western Region; Vice-Admiral Kaye Edden, the Admiral Commanding Reserves; Commodore J. Whayman, Royal Naval Reserve; and a number of senior R.N. and R.N.R. officers. The occasion cemented a long connection between Paddington and Admiralty traffic and it is appropriate that the locomotive went into service immediately on a London-Plymouth train. By coincidence a paper describing this 2,200-h.p. Type 4 class of locomotive was read on Tuesday of this week by Mr. G. E. Scholes before a meeting of the Institution of Locomotive Engineers; in it he dealt with problems of design and construction and results in service which indicate that the machines will enjoy considerable success. As chief technical assistant (locomotive) to Mr. R. A. Smeddle, chief mechanical and electrical engineer, Western Region, the author was in a position to produce a paper of great authority which will be received with eager interest by railway mechanical engineers in many countries.

Thornycroft Plans

EFFORTS are in future to be intensified in the maximum capacity chassis field, four-, six- and eight-wheelers, together with specialist vehicles for home and overseas use. Sir John E. Thornycroft, chairman of John I. Thornycroft and Co., Limited, tells shareholders this of the road vehicle side of the business, Transport Equipment (Thornycroft), Limited. By the autumn of last year it had become obvious, he says, that it was impossible to obtain castings, tyres and other items in comparatively small quantities at prices which would allow them any chance

in operation of Thornycroft vehicles. To an unfortunate degree, it would seem, the company is a victim of the innate conservatism, or follow-my-leader attitude, of operators. With its present range the company would seem to have products which will not readily be improved upon and, indeed, leave well alone has paid handsome dividends to other manufacturers.

Are Shipowners Efficient?

THE latest P.E.P. pamphlet, *The British Shipping Industry* (Political and Economic Planning, price 4s.), maintains the critical character of its many predecessors. Amongst other things it suggests that managerial efficiency may not be maintaining the standards set by the pioneer members of shipping families or achieving the standards common to other progressive industries. It remarks upon the sparsity of university graduates in shipping and on the fact that the industry has been backward in taking advantage of courses for managers conducted in the universities and elsewhere—to which, we submit, might be added an apathy towards the Institute of Transport, which its present president, a shipping man, and others have for long been trying to overcome. It suggests that British shipowners have been slow to add tankers to their fleets—"it is only a few years since many . . . operators overcame their distaste for tankers, which they scarcely regarded as ships at all; a similar conservatism has marked their attitude to new and experimental vessels of other types." It points to the highly successful trade developed by three Scandinavian lines with Newcastle using pallets, and asks why it should have been the Scandinavians. But the suggestion that other nations have led the way with special carriers, such as container and roll-on roll-off ships, is surely refuted by British pioneering work which has resulted in the present extensive cross-Channel ferry and container

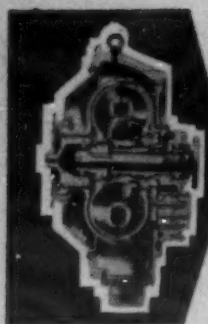
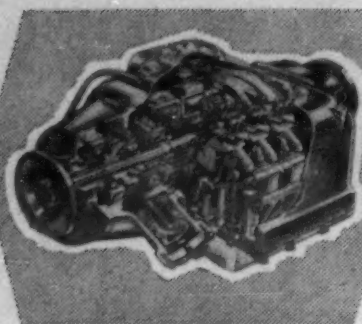
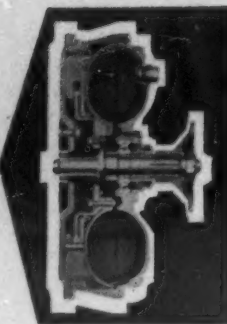
services. In conceding that in just three or four years new ideas are making their impact on the industry the review refers to "the genuine post-war achievement of the industry" in the face of subsidised competition. "The British fleet has been restored and even nominally enlarged. Britain's new passenger liners and indeed many of the other ships are second to none. And even without electronic computers and trade development divisions some new trades have been built up"—all of which may be regarded as scant praise by harassed shipowners. Indeed, Dr. J. R. Gebbie, chairman of William Doxford and Sons, Limited, and a former president of the Shipbuilding Employers' Federation, roundly describes the new P.E.P. effort as "complete nonsense" and demands that its authors discard their anonymity. "Who are these supermen," he challenges, "who are able to teach us how to run our business?"

P. and O. Shows P.E.P.

PUBLICATION of the P.E.P. report on the British shipping industry may or may not prove of permanent value to transport, but the suggestion that owners were too conservative in their approach has been belied by the P. and O. company. Last week it showed off the progress which is being made with *Canberra*, the new 45,000-ton vessel under construction at Belfast. This ship, the largest passenger vessel to be built in a British yard since 1945, certainly embodies a considerable amount of new thinking and we propose to deal with it in more detail in a subsequent issue. Basically it was realised that the cost of construction precluded any repetition of the *Himalaya* class P. and O. ships and *Orcades* class Orient Line vessels, because they would be too expensive in relation to their earning power. It was decided that the solution lay in an extension of Pacific operations and the construction of new tonnage which would still be able to use the Suez Canal but would nonetheless be larger, in order to carry an economic passenger load, and faster in order to achieve economic coverage of the extended services. The Orient contribution to the new programme—*Oriana*—was launched recently at Barrow and the two vessels between them will cost some £30 million. This is a very considerable stake to place upon what is still a new development. In this instance, as in so many others, British shipping cannot be accused of faintheartedness. *Canberra* is due to be launched on March 1 next by Dame Pattie Menzies.

Comets Again Ahead of Time

THE day—November 16—that British European Airways announced details of the reduced fares that it hopes to charge next year was also the day upon which Sir Aubrey Burke, chairman of the de Havilland Aircraft Co., Limited, formally handed over to Lord Douglas of Kirtleside, chairman of B.E.A., the first two Comet 4Bs of the seven ordered by the corporation. The first (G-APMB) was delivered nearly two months ahead of schedule and the second (G-APMC) was nearly three months ahead. As Sir Aubrey recalled, this manufacturer achieved a comparable feat last year with the first Comet 4s for B.O.A.C. and this repeat performance is indeed commendable. It may be added that operators are inevitably encouraged by the display of such enthusiasm and although B.E.A. plans provide for the introduction of the aircraft on scheduled services next April, they are likely to be used for ad hoc replacement of Viscounts on flights long before then. As Lord Douglas said in accepting the aircraft, it marked the entry of the world's first turboprop airline into the pure jet business. On its longer and more competitive international routes, where speed was of the greatest importance, it was clear that B.E.A. had to have a pure jet aircraft if it was to maintain its position as the leading European airline. The 4Bs would be used first on the routes to Rome, Athens and the Middle East and later also to Warsaw, Moscow, Scandinavia and various other points in Central Europe; by July, 1960, no fewer than 18 cities would be linked by B.E.A. Comet.

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The Editor is prepared to consider contributions offered for publication in MODERN TRANSPORT, but intending contributors should first study the length and style of articles appearing in the paper and satisfy themselves that the topic with which they propose to deal is relevant to editorial requirements. In controversial subjects relating to all aspects of transport and traffic this newspaper offers a platform for independent comment and debate, its object being to encourage the provision of all forms of transport in the best interests of the community.

Buses and Traffic

WITHOUT disclosing its nature, Mr. A. F. R. Carling, the chairman, indicated at the annual dinner of the Public Transport Association that that body had now completed its memorandum of evidence for Professor Jack's Committee which is investigating rural transport problems. It must be clear, however, to everyone that the Minister of Transport and the Chancellor of the Exchequer were trying to milk the same cow—the Minister wanted the rural services, the worse-than-marginal services, to be maintained and the Chancellor wanted the money. "Most of us here," he said, "have spent our working lives in public transport, trying to provide the best and most economical system of services. We have few illusions about it. We know that we can seldom match the convenience of the private car; that our product is the utility brand of article, meant to be produced, of sound quality, at a low price. That being so, we simply cannot understand why our basic raw material, our fuel, should be taxed at four times the rate applicable to exotic luxuries." They were not selling personal indulgences like wine or tobacco that attracted a selective deterrent tax. They were purveying, primarily, rides to and from work and it seemed extraordinary that the price of them and the quantum of bus operators' service to rural areas should be burdened so deliberately by special taxation.

Dimensions and Speeds

TWO more points were put before the Minister by Mr. Carling. On box dimensions he said that the P.T.A. had been considering the limits as governed by statutory instrument and felt sure the time was ripe to bring Britain into line with modern Europe. That meant a measure of relaxation, to an extent already discussed by E.C.E. in Geneva, and eventually the P.T.A. and other associations would be making a joint approach to the Minister. The P.T.A. was convinced that Mr. Ernest Marples's predecessor was on the right lines when he proposed for public service vehicles an increase in the speed limit from 30 to 40 m.p.h. outside built-up areas. "We were bitterly disappointed that he did not press on with that." The present limit was out of date and quite unworthy of the standards which the Ministry had long set for p.s. vehicles and drivers. With great restraint Mr. Carling (who, owing to the absence of the Minister earlier in the evening had had to divide his speech and propose "The Guests"—replied to wittily by Lord Mancroft—before replying to Mr. Marples) refrained from expatiating upon the benefits of clearing the roads to promote traffic flow, but the Minister expressed his own views on that subject with characteristic forthrightness.

NEWS SUMMARY

ON November 17 the formal opening ceremony took place at Low Fell of the most ambitious depot of British Road Services—a multi-purpose establishment described on page 3. The opening was performed by Sir Brian Robertson, chairman of the British Transport Commission.

The first two Comet 4Bs of its order for seven have been delivered to British European Airways by de Havilland Aircraft Company. The first turboprop airline thus joins the jet users.

A Traffic Engineering Study Group has been launched under the auspices of the Institution of Civil Engineers and has arranged five meetings for the coming session beginning with a discussion on urban intersections, with particular reference to Highbury Corner, initiated by Mr. Joseph Rawlinson, C.B.E., chief engineer, London County Council, on November 19.

Minister on Policy

HUMOROUS reaction of Mr. Marples to his new job is that he derives strength and vitality by having an advisory committee of 50 million people. He did not yet know the answers to any of the transport problems with which he was confronted. He thought it necessary to assess the job and, as in civil engineering projects, to examine for himself the difficulties on the spot. He wanted to meet the people who were carrying out the tasks and proposed to see for himself at home and abroad what was being done on the controversial subject of bridges. He wanted to ask a good many questions. Then he must discipline the impressions so gained, by collective thinking in the Ministry. Thought was easy, but action was difficult. He was, however, a child of private enterprise—he went into Government because the Government was coming into his business. Action could be by unconventional methods but it was desirable to prepare in writing one's aims and objectives so that the goal was clear. He thought he ought to move fast—if he did not, traffic would grind to a standstill. He might have to ask for great powers. He believed in experiment—discs or parking meters, for example, could both be tried—and he was sure people responded to change. Further, policy must be presented fearlessly and fairly—if it was good the British public would accept it. The policy must be clear and free from ambiguity. He would rather be unpopular and succeed by grasping the nettle than be popular and fail—soft hearts could do more damage than hard heads.

Traffic Engineering

AS Christmas approaches the London traffic situation seems quite likely to repeat last year's near stagnation and the possibility that the Minister has something up his sleeve in the way of unconventional action is therefore cheering. Other good auguries are the establishment of a chair of traffic engineering in Birmingham University and of a study group in that subject at the Institution of Civil Engineers. This group already comprises 340 members of the Institution and 118 non-members. For our part we feel that although it is aggravating to the private car user to be regulated, especially in view of the £500 million collected annually in vehicle and fuel taxation, it is from the national angle far better for a lorry carrying 10 tons or more of goods or a bus with 60 persons aboard to get through a city centre than for one man to make his way over the same streets by car. Underpasses, ring roads or underground car parks may be available to help solve the problem in the future—and how necessary they will be if the car population doubles—but our immediate problem is to make traffic move now with our present resources. Although America has 30 years' start over us in formal study of traffic engineering, we were successful in applying the principles for our conditions with the introduction of gyratory schemes and traffic lights here at that time. The stimulation of new thought by the work of the group is nonetheless very welcome.

Need for Action

WE hope that Mr. Marples is looking at means of rapid extension of parking meters, car parking facilities generally, park-and-ride facilities from peripheral parks (Kelvin Hall provided a good example in Glasgow for the Scottish Motor Show), and other methods of promoting the flow of essential vehicles, especially commercials and buses. Rigorous police enforcement of no-parking regulations and clearance of Waterloo Bridge and Victoria Embankment immediately would give satisfaction to many citizens (including Lord Mancroft) who are far from satisfied to see the vast sums spent on these improvements stultified by long lines of parked cars. Electronic control of traffic-light cycles according to demands of traffic flow deserves investigation—the mat-actuated cycle is often unreliable because the traffic is more or less stationary at that distance from the lights. Tidal traffic flows, clearways, special lanes reserved for buses and taxis at suitable points and limited extension of one-way working, where closely parallel streets are available (such as Wigmore Street and Oxford Street) can also play their part, together with, as we have repeatedly pointed out, quite minor street alterations where bottlenecks can be relieved by measures as small as cutting a few inches off the pavement width. All these things must be tried and, above all, the new Minister must do all he can to encourage the art or science of traffic engineering to take root here so that street improvements are made on the basis of knowledge rather than opinion.

The twelfth of the Swindon-built diesel-hydraulic locomotives on the Western Region has been named *Royal Naval Reserve 1859-1959* by the First Sea Lord in a ceremony at Paddington. A paper on the design, construction and performance of the D800 class has been read at the Institution of Locomotive Engineers.

A joint committee representing the British Transport Commission, the Pullman Car Company and the National Union of Railwaymen was set up on November 16 to examine in detail the future of Pullman services on British Railways.

P.E.P. this week produced a sharply critical review of the shipping industry to which representatives of shipbuilding have already taken strong exception.

To extinguish an underground fire below the Eastern Region line at Sheepbridge the district engineer has a possession from November 22 to 29 inclusive. Midland route services between Sheffield and Chesterfield are to be curtailed or diverted.

B.R.S. SHOWPLACE ON TYNESIDE

Multi-Purpose Low Fell Depot Opened

FOR EFFICIENT HANDLING OF LARGE TONNAGES

LAST month saw the completion of what has been easily the most ambitious project yet undertaken by British Road Services, its 17-acre depot at Low Fell, Gateshead. This impressive addition to B.R.S. facilities embraces general haulage, parcels and contract hire services, and provides public and private warehousing to boot. The entire project, which it has taken just over three years to bring into full operation, cost about £750,000, including the freehold site. It represents, with its rail-connected parcels depot and warehouse, off-the-floor sorting of parcels and extensive mechanisation in all areas, a distillation of all the experience British Road Services has achieved from its experimental work in the

truck, a 40-ton weighbridge and a loading gauge under which the height of a load can be checked before a vehicle leaves on its journey.

On the general haulage side there are 366 staff—308 operational, which includes drivers, mates, bank staff, etc., and 58 clerical and administrative.

Communications

The telephone system has been designed to enable contact to be made with the whole of B.R.S. on Tyneside quickly and with as little trouble as possible. This was achieved by making one telephone number, Low Fell 78844, cover every department at the depot, at the district office in Newcastle and at Mansion House depot, Newcastle. At the same time, each individual telephone on the system gives direct communication between each extension as well as a direct exchange line



Unloading quay in the parcels shed at B.R.S. Low Fell depot. Here, incoming consignments are given a primary sort before being moved in cage or gondola pallets to the pallet concentration areas (right), where they will be sorted again to delivery rounds. Stacked pallets awaiting reloading are seen in the background



design of depots. It is claimed to be the largest and most up-to-date comprehensive haulage terminal in Europe.

Low Fell depot, situated off Eastern Avenue at the southern end of the Team Valley Trading Estate, covers, as already stated, over 17 acres and has two rail connections, one at the north end of the site and the other at the south. It embraces the Newcastle upon Tyne general haulage branch and the Tyne-Tees parcels branch, administrative offices, a vehicle service station, a press-button fuelling point, a vehicle wash, a messroom for staff and floodlit vehicle parks. Work was first put in hand in July, 1956. The installations here replace 13 separate B.R.S. establishments—13 sites housing a branch headquarters, four general haulage depots, two parcels depots, four warehouses, three service stations, a canteen and a vehicle park.

Transshipment Shed

Transshipment of both general haulage goods and parcels traffic is carried out in a large shed with an unobstructed area of 88,000 sq. ft. which allows for the full mobility of mechanical handling equipment. The roof is carried on lattice girders which span approximately 200 ft. and ample headroom has been allowed for lifting equipment. The roof cladding is coloured asbestos and the wall cladding is of aluminium sheeting. General haulage vehicles have backing-up space under cover to both sides of the loading bank which is situated towards the north end of the shed and is conveniently linked

without going through the switchboard. At present there are 106 extensions.

The teleprinter terminal at Low Fell, part of the national network, enables vehicles to be pre-advised and special instructions to be forwarded and received in connection with urgent deliveries. Low Fell is one of 130 stations on B.R.S. employing 370 teleprinters and facsimile machines linked by private wires, the largest teleprinter system of this character in the country. This teleprinter service is entirely at the disposal of customers and is also linked up with the international network.

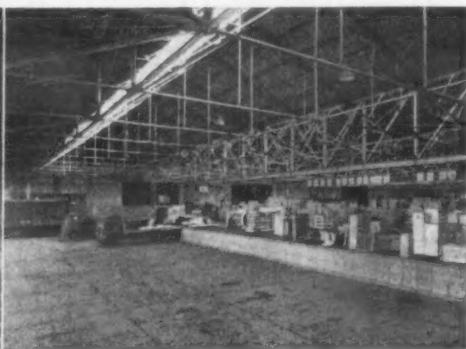
Parcels Traffic

On the parcels side throughput averages 232,000 packages in each four-weekly period and operations are conducted at floor-level. The collection and delivery area served comprises the greater part of Northumberland and the northern half of County Durham. Regular trunk services are operated to many parts of England and Scotland. Manual staff employed totals 60 drivers and 40 checker-loaders. The Tyne-Tees parcels branch manager, Mr. E. G. Walters, together with the branch administrative staff, are located in the main office block and there is a traffic office in the sorting shed.

Evolved by British Road Services, the off-the-floor technique for sorting parcels, which dispenses with the need for a large platform, has been incorporated in this shed, the first time that such a method has been adopted for large-scale use in the undertaking. It provides for the unloading of vehicles over a narrow quay from which steel



Drivers' report point outside traffic office, with acoustically treated partitions and ceiling; right, part of the general haulage transit shed, which, unlike the parcels shed, has a conventional loading platform



to the warehouse. On this bank electric pallet trucks operate, and the pavings on one side are suitably reinforced for the use of a mobile crane. Parcels activities are carried out in the southern half of the shed. All openings to the parcels area are fitted with steel roller shutters for security, and hoses for fire-fighting are distributed throughout the whole shed.

General Haulage Fleet

General haulage operations are under the control of branch manager Mr. F. A. Gustard. The general haulage complement at the depot is 204 vehicles and 135 trailers, including 8- and 4-wheel rigs, 15-, 10- and 8-ton articulated units and vans and lighter types of vehicles for local distribution. Special types of vehicles include 35- and 40-ft. trailers and also vehicles built to customers' requirements. Both trunk and regular services are operated from Low Fell to all principal centres.

The local delivery service gives next-day delivery of goods received overnight for Northumberland, Durham and North Yorkshire by vans and sided vehicles. Traffic is accepted here for Ireland or the Continent by the respective vehicle ferries. A comprehensive contract-hire service supplies vehicles to customers' requirements. Long-distance and local distribution traffic is representative of the wide variety of products familiar in the Newcastle area. It ranges from steel, heavy machinery, switchgear, prefabricated steelwork and tanks for nuclear installations to rope, baler twine, paint, foodstuffs, preserves and confectionery. The centre of operations in this section of the depot is the transit shed, rail-connected and manned 24 hours a day. Radial distribution vehicles are loaded overnight. The latest mechanical handling equipment is in use. It includes an 8-ton Shelvoke and Drewry Freightlifter fork

gravity roller conveyors run down to floor level. On either side of each conveyor is a row of cage pallets at floor level into which traffic is given a primary sort. Gondola pallets are positioned at the end of the roller and also at each side of the roller on the quay to accommodate traffic of an awkward type which cannot readily fit into the cage pallets. When full, pallets are uplifted by fork-lift trucks and taken to concentration areas in the centre of the depot at floor level where a secondary sort takes place. At this point the pallets are stacked until they are required to be taken to the point where loading of the delivery vehicle takes place. For this purpose they are raised to a narrow bench against which the vehicles are set.

Shed Equipment

At the secondary sorting stage it is possible to stack the pallets up to 16 ft. high when it becomes necessary at peak working periods, and the saving in floor space and avoidance of congestion can readily be appreciated. The cage pallets in use are of tubular metal and wiremesh construction, and the gondola pallets are of tubular metal with a flat sheet-metal floor. Both have a 40-in. by 60-in. face and there is a total of 670 of them in the depot. Five oil-engined fork-lift trucks, Coventry-Climax and Hyster units, each capable of lifting 4,000 lb. to a height of 14 ft., and 10 Yale Worksaver pallet trucks are required to deal with the traffic passing through the depot.

Like the general haulage shed, the parcels shed is rail-connected so as to permit co-ordination with British Railways by using, as appropriate, fast overnight rail-trunking services in container loads. There are separate quays for incoming and outgoing trunk vehicles and rail wagons. Road and rail vehicles share the same working face. There are 53

(Continued on page 6)



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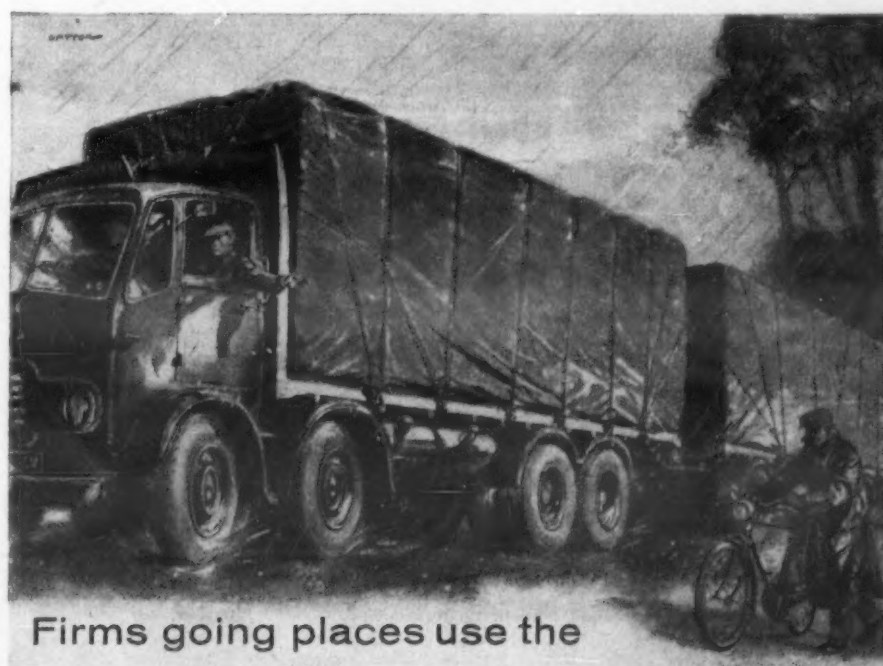


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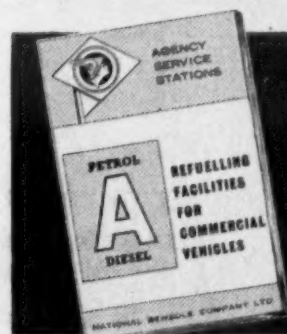


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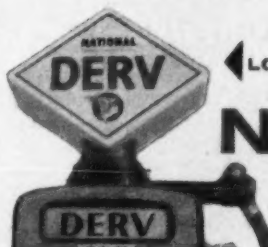
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LORRY—BUS—COACH

Normal User Issue to be Fought

IT might well happen that a new fuel, or a development of an old fuel, would make this major element in road transport costs shrink to a much smaller—even an insignificant—proportion. If and when this happened the Government of the day would be forced to give serious and intelligent consideration, perhaps for the first time, to the connection between road and rail finances. Mr. F. R. Lyon, public relations officer of the R.H.A., said this in a paper he read to the London division of the Industrial Transport Association on Tuesday. If for any reason this particular source of revenue, £300 million annually, began to dry up, the Government would be forced to find some other way of getting from the public what it was now getting from road users.

In view of the fact that £1,500 million of public money had been earmarked for lending to the railways to pay for their modernisation plan, and that at least another £400 million was going to be advanced to keep their financial position stable in the meantime—at least on paper—it was doubtful whether any government for a long time to come would have the courage to abandon and write off the whole of this enormous debt. For many years, therefore, one must accept the railways as a factor to be reckoned with. Speaking of the valuable survey of C-licensed vehicles recently published by the Traders Road Transport Association, Mr. Lyon commented that it was reasonably certain that if there had been no licensing system there would now be many more road haulage vehicles and correspondingly fewer vehicles operating on C-licences.

Comment on Railway Charges

Of British Road Services, he said that if the turnover and the net revenue were added together of all leading road hauliers with an aggregate fleet of 16,000 they would be found to be doing very much better than their nationalised rival. The success achieved by B.R.S. (and he admitted that it was efficient) had been in spite of its size and complicated organisation, and not because of these things. There are certain trends today that were working to the disadvantage of the small man in road haulage. The first of these was the practice now adopted by the railways, with their new-found freedom to charge what they like, of cutting certain rates for traffic that they particularly wanted to carry. Because they were so large, and no doubt also because they were likely to remain in business whether they made a profit or a loss, they were able to offer what appeared to be totally uneconomic rates in certain cases, and they were no doubt willing to continue operating at these rates at least until the hauliers in competition with them had decided to call it a day. A large haulier was better able to withstand this kind of attack. The small haulier, especially if his principal traffic was taken from him, might have no option but to go out of business.

The railway squeeze was completed by a licensing weapon they had recently found in the shape of the declaration of normal user. Recent decisions by the Transport Tribunal tended to tighten up the procedure. This seemed particularly harsh if, as one might expect to happen from time

to time, the railways first of all undercut an operator in order to deprive him of his usual traffic, and then he had his licence revoked if he dared to look to an alternative market. It was quite certain that hauliers would be calling for action from the Government both on this question of normal user and on the privileged position from which the railways could attack even the best established of operators.

Coventry Expelled from Federation

IT was made known this week that Coventry Corporation has been expelled from the Federation of Municipal Passenger Transport Employers because of its decision to make annual safe driving

transport undertakings. The decision now meant that the employers' side of the two national councils would no longer act on behalf of Coventry Corporation.

Liverpool Reduces Evening Services

FROM November 16 Liverpool Corporation Transport reduced its evening services. A few months ago the city council reluctantly decided that some reduction in services would have to be adopted and it is proposed to reduce mileage operated by 5 per cent (a little over 2 million miles per year). Most of this mileage will be withdrawn during the evenings, after peak-hour services have finished. The increased ownership of private cars and motorcycles, and the increased use of television has caused a particular fall in evening traffic. In general terms, reductions are in the nature of a 15-min. frequency being reduced to 20 min.; a 20-min. frequency to half-hourly, and so on. Some duplication for the late night services is available if necessary, but passengers have been advised to



Eastbourne Corporation Transport Department has been operating A.E.C. Bridgemaster and Leyland Atlantean 78-seat (highbridge) buses experimentally. This 76-seat Bridgemaster has a Park Royal body, air suspension and heaters. The destination blind shows the combined route was "1 and 4," to "Archer" and "Langney (Priory Road Only)" respectively

awards of between £1 and £10 to bus drivers. Councillor W. Spencer, chairman of the Transport Committee, said that it did not regard the payments as increasing rates of pay, as had been argued by the Federation. They were solely in the interests of road safety to encourage safe driving. He claimed that about a third of the undertakings in membership of the Federation had introduced these payments before 1951 and were allowed to continue them, but Coventry had applied later and was prevented because of a wage agreement made in that year.

Councillor Spencer said that the Federation considered Coventry had broken the wage agreement made by two national councils concerned. These were the National Joint Industrial Council for the Road Passenger Transport Industry and the National Joint Council for craftsmen in municipal

plan their evening journeys according to the new timetables and not to rely on last buses which may be full.

Bus Wage Claims All Round

CO-ORDINATED wage claims are being put in by all three sections of the bus industry subject to agreements—municipal and company men, and London Transport personnel. The London Transport claim, for an addition of £1 per week, was submitted last Friday, the others were to follow this week. They are the first since the union machinery for wage claims was co-ordinated. Drivers and conductors, and also unskilled and semi-skilled maintenance men are involved in the claims. In the case of the companies skilled maintenance workers are also included: the unions are demanding that they should enjoy the same rate

of pay and conditions of service as their counterparts in the municipal undertakings (there is a difference of £1 1s. 11d. in the weekly wages of the two groups at the moment). At the same time the employers, other than London Transport, are being asked to agree to a revision of the standing passenger arrangements.

Bridge Reconstruction at Gloucester

FROM midnight on November 20, Townham Bridge, Gloucester, on the London—Fishguard trunk road (A40) will be closed to all vehicles over two tons weight. Only cars and light vans will be able to use the south-west side of the bridge in single-line traffic until the morning of November 23. The Ministry of Transport and British Railways are replacing the present bridge over the railway, which has a load restriction of 40 tons, with one that will carry up to 180 tons. Rebuilding of the bridge is being carried out half at a time so as to allow single-line working for road traffic. Reopening for gross loads up to 100 tons will take place on December 14.

No Evidence from Dealer at Inquiry

WHEN the public inquiry by the Northern area Licensing Authority, Mr. J. A. T. Hanlon, into the Scott and Hewitt cases (MODERN TRANSPORT, November 14) was resumed at Newcastle upon Tyne on November 11, it was stated that Mr. I. H. McLaughlin, a former employee of K. and B. Motors (Newcastle), Limited, who had declined the Northern Licensing Authority's invitation to attend, had previously made a statutory declaration that, in the case of Mr. Hewitt's vehicle, although the drivers' records showed the vehicle was carrying phosphate between Whitehaven and Annan on that day, he was satisfied that the vehicle was weighed in Newcastle. The resident engineer in charge of the weighbridge at the Workshops of the Blind, Newcastle, Mr. E. A. Stephenson, said that at the times in question he did not check the registration numbers of vehicles to be weighed, but accepted the word of the person in charge. All he could say was that vehicles had been brought by K. and B. Motors and weighed in accordance with the weight tickets issued. Replying to Mr. Hanlon, who said that it appeared that the vehicles in question were not weighed at Newcastle on the given dates, Mr. Stephenson said vehicles often carried trade plates obscuring the registration number and he probably accepted the number given to him by the driver. He now realised the stupidity of not inspecting the vehicles himself. No evidence was called on behalf of K. and B. Motors, Mr. E. Waters, managing director, telling Mr. Hanlon that his solicitor, who knew of these matters and was in possession of the documents, was unable to attend although he wished to make submissions on the company's behalf. Mr. McLaughlin was responsible and all he could say was that the vehicles, to his knowledge, had been properly weighed. Mr. Hanlon closed the inquiry, subject to any application K. and B. Motors solicitor wished to make to the licensing authority.

Bus and Coach Developments

Wardways, Limited, Bingley, seeks excursions and tours thence and from Otley licensed to W. C. Forster and Sons, Limited.
Barton Transport, Limited, proposes a new service between Nottingham and Bramcote Hill (Leans Croft) via Derby Road, Cranston Road, Bankfield Drive and Thoresby Road.
Crosville Motor Services, Limited, applies for a Bala—Arenig service via Yswilin, Fronogoch, Tynybont and Capel Celyn subject to the closing of the railway service on the Bala—Blaenau Ffestiniog branch.

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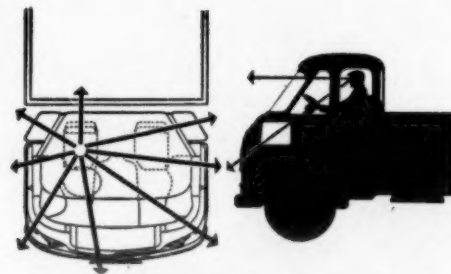
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B.R. LOCOMOTIVE TESTS

Diesel-Electric Bo-Bo No. D8000

By E. C. POULTNEY, O.B.E.

A RECENT locomotive test report bulletin issued by the British Transport Commission describes a complete series of trials carried out by the locomotive testing section of the L.M. Region chief mechanical and electrical engineer's department and deals with the D8000 class Bo-Bo diesel-electric unit designed and constructed by the English Electric Co., Limited. It is the fourth of these publications dealing with the test performance of diesel-power locomotives.*

A previous report had for its subject the large Deltic diesel locomotive, also designed and built by the English Electric Co., Limited, which was reviewed in MODERN TRANSPORT of August 9, 1958. The locomotives forming the subject of the present report were fully described in the June 15, 1957, issue of MODERN TRANSPORT at a time when the first of the D8000 locomotives was completed and formally handed over to British Railways at the maker's works, the Vulcan Foundry, Newton-le-Willows, Lancs. It will, therefore, be unnecessary to do more than recapitulate a few of the leading dimensions. The weight in working order is 72 tons and the maximum axle load 18.4 tons. The maximum tractive effort at 26 per cent adhesion is 42,000 lb. The continuous tractive effort exerted at 14.8 m.p.h. reaches 19,500 lb. and the diesel engine output is 1,000 b.h.p. at 850 r.p.m. The maximum designed speed is 75 m.p.h.

Tests

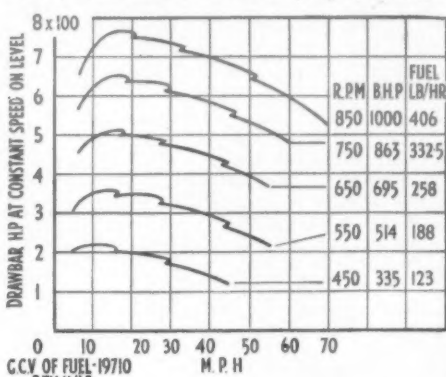
The locomotives of this series are mainly intended for freight and freight transfer traffic; although not fitted with a train heating boiler, they are stated to be suitable for passenger traffic, if required. The principal tests were carried out on the London Midland Region, using the mobile testing plant, during which a total of 2,240 miles was run. Prior to these constant speed tests, the locomotive had already run 18,650 miles. The road trials were carried out on the route Toton—Leicester—Rugby—Market Harborough—Derby—Toton.

In addition to these trials and in order to demonstrate the practical application of the test results to normal service conditions, a run was made with

b.h.p. and fuel rate figures are inclusive of all auxiliaries except the compressor, which is intermittent in operation. Field divert speeds apply to conditions of acceleration only. On the locomotive tested, the maximum engine speed at full controller position was 840 r.p.m. The test results have been extended to show the power that would be attained at 850 r.p.m., the designed maximum. The lower power available at the lowest engine speed is obtained by reducing the main generator excitation.

Power Distribution

The diesel engine provides power for the auxiliary equipment, including cooling air fans and compressors as well as the four traction motors. There are, therefore, certain power losses between the engine output and the driving wheels and between wheels and drawbar. At a fully open controller



Horsepower at constant speed

setting, meaning maximum power output by the diesel engine and at a road speed of 15 m.p.h., the report gives the following data respecting the performance of this locomotive, which, it may also be mentioned, is further shown in the test report by plots for various engine speeds r.p.m. and m.p.h.

ENGINE POWER 1,000 B.H.P. AT 850 R.P.M. SPEED 15 M.P.H.

Auxiliaries 82 h.p. = 8.2 per cent of b.h.p.
Generator loss .. 43 h.p. = 4.3 per cent of b.h.p.
Traction motor loss 101 h.p. = 10.1 per cent of b.h.p.
Locomotive resistance 12 h.p. = 1.2 per cent of b.h.p.
Total power absorbed by the locomotive .. 238 h.p. = 23.8 per cent of b.h.p.

The resulting drawbar horsepower is, therefore, 76.2 per cent of the b.h.p. of the diesel engine, so that the drawbar horsepower is 762. The graph given in the report appertaining to full power operation, i.e. 1,000 b.h.p., of the diesel engine at 850 r.p.m. shows the auxiliary losses to be constant at all speeds. The generator losses are also practically constant. The traction motor losses appear to increase slightly with increasing locomotive speeds, so that the loss of 226 h.p. between the diesel engine and the driving wheels at 15 m.p.h. increases to about 260 at 60 m.p.h.

Train Loadings

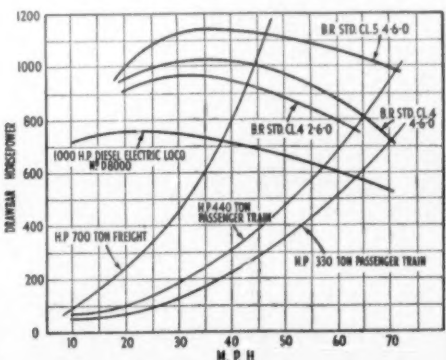
The test report includes four graphs showing the speeds attainable with passenger trains of varying weights on a level tangent and on various rising gradients. For specific train loadings, the maximum speeds attainable at full power on a level tangent track and on a rising grade of 1 in 100 are as follows:

Train load	Speed miles per hour		
Tons	Level	1 in 100 Up	
220 ..	72 ..	34	
330 ..	64 ..	26.5	
440 ..	57.5 ..	21.8	
550 ..	52.5 ..	17.5	

The speeds given above have been estimated by sight from the graphs and must, therefore, be considered approximations.

Comparisons with Other Locomotives

The review of the performance tests of the Deltic locomotive previously given in MODERN TRANSPORT included a family of curves indicating how the drawbar horsepowers developed by the diesel-powered locomotive compared with others, both steam and diesel-electric, previously tested. In this case, however, the steam and diesel locomotives were of relatively low powers, though at the same



Comparison with other locomotives

time the most powerful of which tests had been published. In the present instance, it is possible to make some comparisons between No. D8000 and steam locomotives of generally similar powers and not too greatly different weights in working order. The steam locomotives are of B.R. standard designs, which have been the subject of tests made on the L.M. and Western Regions. They are: Class 5 No. 73008, weighing 125.15 tons; Class 4 No. 75006, 101.05 tons; and Class 4 No. 43094, 99.4 tons.

At 50 m.p.h. the available drawbar horsepowers on a level tangent track were shown to be:

Class 5	4-6-0	1,110 d.b.h.p.
Class 4	4-6-0	985 d.b.h.p.
Class 4	2-6-0	880 d.b.h.p.

The hourly coal consumptions (Blidworth coal) for each locomotive were given as follows:

Class 5	2,840 lb. per hr.
Class 4	2,790 lb. per hr.
Class 4	2,840 lb. per hr.

These coal rates are below the maximum of 3,000 lb. per hour for continuous operation using one fireman only.

(Continued on page 6)

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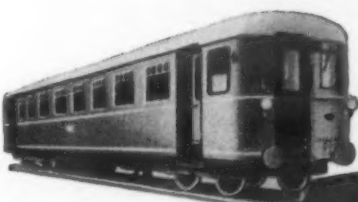
Railway installations have been supplied for all parts of the world—the photograph shows a Type 2—1200 h.p. Co-Bo Diesel electric locomotive for British Railways hauling a 420 ton train near Wetherby

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a trailing load of 452 tons, comprising 15 coaches including the dynamometer car, to timings estimated from the performance characteristics previously established. The locomotive was worked at maximum power as far as practicable. Fuel consumptions and electrical output by the main generator were continuously recorded. For this variable speed test, the route was Toton—Derby—Chesterfield—Chapel-en-le-Frith—Ambergate—Toton.

Constant Speed

The range of power output was investigated by conducting tests at five different settings of the controller, corresponding to the nominal engine speeds of 450, 550, 650, 750 and 850 r.p.m. At any given controller setting, engine speeds, b.h.p. and fuel consumption remain substantially constant. Full power is given at 850 r.p.m. So far as practicable, each of the above controller positions was maintained throughout a particular test run. Two or more runs at each setting of the controller were required to cover the range of road speeds of the locomotive from 5 to 70 m.p.h. No runs were made at 75 m.p.h., due to the absence of steep falling grades on the route chosen. During each test, the mobile test units enabled road speeds to be controlled in increments of 5 m.p.h. at the higher and 2½ m.p.h. at the lower speeds.

The normal period for which each of these constant speed steps was held was from 10 to 15 min. according to circumstances. Complete records of all items required to furnish a comprehensive picture of the capabilities of the locomotive were taken during each test run. The fuel used had a gross calorific value of 19,710 B.Th.U. per lb. and a specific gravity of 0.831. Of the numerous graphs included in a well-arranged and practical report, two reproduced show respectively the tractive effort and horsepower characteristics derived from the constant speed tests.

These plots give a clear idea of the power available. Each curve represents the powers available at specific power outputs by the diesel engine at given speeds in r.p.m. and at given fuel consumptions per hour. In connection with each of these graphs, the following remarks should be observed. All lines are lines of constant controller positions, fuel rate, b.h.p. and r.p.m. The top line shows maximum engine r.p.m. and power. The

* Performance and Efficiency Tests—English Electric Type 1 1,000-h.p. Bo-Bo Diesel-Electric Locomotive No. D8000. Published by the British Transport Commission, 222 Marylebone Road, London, N.W.1. Price 10s. net.

B.R.S. Depot

(Continued from page 3)

parcels vehicles based on the depot, ranging from 2- to 10-ton capacity.

The single-storey rail-connected warehouse, with floor area of 45,000 sq. ft. and a cubic capacity of 900,000 cu. ft., is built at vehicle platform height to give ease-of-loading facilities. Goods at

turning circle requiring only narrow gangways and enabling the maximum amount of floor space to be utilised for storage. These trucks are electrically driven to avoid diesel or petrol fumes in the warehouse. Over 3,750 two-way 40 in. by 48 in. timber pallets are in use and for stocking goods of irregular shape or size, pallet converters have been used to palletise where it might not have been possible otherwise. With the introduction of the Lansing Bagnall reach trucks, which are the rider-controlled FRER2 model, it has proved possible to reduce the aisle width from 12 ft. to 8 ft. Also in use are Portapal and Yale Worksaver pallet trucks.

operations, the east side having three pits for dealing with repair work only.

All the pits on the west side are provided with lubricant, grease and waste oil collectors and air lines, and draw their supplies from a single large oil store. In accordance with modern practice this system dispenses with a large number of drums and barrels and the storage tanks are recharged direct from the oil company's tankers. Surrounding the main working space are the usual facilities such as battery charging, tyre repairs, parts cleaning, records office, etc., which have been carefully located to reduce movement to a minimum.



One side of the 600 ft. long warehouse has a rail connection and a Lansing Bagnall reach truck is seen transferring incoming bulk traffic from a rail wagon; centre, the service station has nine inspection pits; right, the refuelling booth which will supply several vehicles simultaneously by remote control push buttons

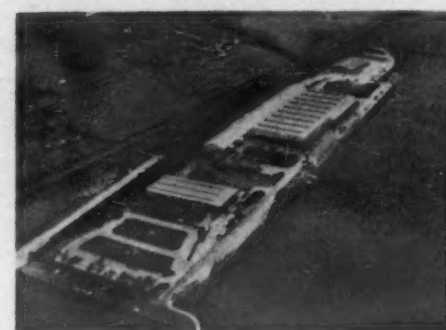
present in storage cover approximately 1,300 different sizes and commodities and include such items as canned goods, flour, starch in bags, beer in crates, cereals, eggs, chocolate, tea, coffee, preserves, dried fruit, paint and electrodes. The rail siding is protected by a canopy, and a series of loading platforms on the other side gives access to the traffic shed and yard.

Goods are stacked and handled throughout by hand-pallet, fork-lift or Lansing Bagnall reach trucks. The last-named, capable of lifting 4,000 lb. to 14 ft., have been selected because of their small

In addition to the main warehouse, there is a warehouse leased by B.R.S. for exclusive use and operation by the H. J. Heinz Co., Limited.

The service station provides accommodation for 12 vehicles at a time and undertakes all greasing, inspection, tyre maintenance and rectification of minor faults for the vehicles at the depot. Major repairs and annual docking is undertaken by the nearby repair centre at Birtley. Vehicles are positioned in echelon formation on either side of the workshop, the west side being provided with six pits for undertaking the greasing and inspection

A remote control system is a special feature of the fuelling station. By this method the driver, having given his requirements for fuel or lubricants to the controller at the cabin, refuels his vehicle from the appropriate hoses. These are grouped on three dispenser columns and are identified by separate numbers and colours. In the cabin the controller presets on the appropriate Brodie-Kent meter the required quantity of fuel and, by push-button control, operates the pumping system from underground tanks to dispenser hoses. The 13 pumps are located in a room under the cabin floor.



An aerial view of Low Fell depot, looking south. In the foreground is the Heinz warehouse, next to the long general warehouse, flanked by general haulage and parcels transit sheds, and in the distance, the vehicle wash and workshop

In the vehicle parks dispensers for air, water and anti-freeze are supplied by Wakefield-Dick Industrial Oils, Limited.

The principal contractors are John Laing and Son, Limited, for the office block, traffic shed, service station and covered wash; A. Monk and Co., Limited, for the general warehouse, the messroom, entrance and fuelling station; and Holland and Hannen and Cubitts, Limited, for the Heinz warehouse and associated offices. Principal sub-contractors and suppliers included:

Potter Rax, Limited, sliding doors; Laycock Engineering, Limited, lubrication and washing equipment; Standard Telephones and Cables, Limited, telephone installation; Thomas W. Ward, Limited, rail sidings; Turners Asbestos Cement Co., Limited, asbestos sheeting; and General Electric Co., Limited, and Benjamin Electric, Limited, lighting equipment.

Opening

On view at the formal opening were 14 representative vehicles of all types in the B.R.S. fleet. Included was an interesting special purpose articulated low-loading box van with translucent glass fibre roof for delivery under contract of tyres of all classes, ranging downwards from the giant sizes used on earth-moving equipment. This is a Leyland Comet coupled to a York semi-trailer. At the rear a Burtonwood tailboard lift raises heavy tyres into the low-level main portion of the body; within the body an Anthony tailboard loader, normally flush with the floor, lifts tyres into the raised forepart of the trailer. The Anthony unit is flanked by a nearside sliding door so that the front portion of the load may be reached during the delivery journey.

This impressive depot was given a formal opening on Tuesday of this week by Sir Brian Robertson, chairman, B.T.C., in the presence of the Lord Mayor of Newcastle upon Tyne, Alderman Mrs. C. C. Scott, and the Mayor of Gateshead, Alderman W. J. Pike and accompanied by Mr. T. G. Gibb, general manager, British Road Services, Major-General G. N. Russell, his immediate predecessor, Mr. H. A. Short, general manager, North Eastern Region, and other officers of the Commission. Mr. F. Brooke Davison, Tyne-Tees district manager, deputised for the North Eastern divisional manager, Mr. P. W. Swindells, who had that day been summoned to Buckingham Palace to receive the M.B.E. awarded him in the Birthday Honours.

Sir Brian said that Low Fell, having regard to its rail connections, could perhaps best be described as a transport centre. It had not been cheap to build and a lot of business would have to be got. But he had never encouraged B.R.S. to run on the cheap. He had told its general manager that it should give tip-top service and have the Bond Street cut about it. There was plenty of room for the small operator—he had his advantages. All the same competition was getting keener and keener; that was good up to a point, but service could degenerate. Now that the election was left behind he hoped that no more brickbats would be thrown at the Commission. No competition within industry today was as keen as that which existed between public and private transport and every year public transport was getting a smaller fraction of the whole.

D8000 ON TEST

(Continued from page 5)

The result of this comparison is shown by a third graph, which indicates the drawbar horsepowers obtainable for the three steam locomotives and the diesel-electric locomotive D8000.

Superimposed three further curves have been added showing the horsepowers required to operate 330- and 440-ton passenger trains and a fast freight train of 700 tons made of express freight stock.

The report as a whole is well compiled and is ample for requirements. It differs in many respects from those already published, but standardisation is not a strong point in any of these test report bulletins.

Forthcoming Events

- Until November 21.—Scottish Motor Show. At Kelvin Hall, Glasgow.
- November 22.—Norbury Transport and Model Railway Club. Ipswich Corporation Transport Trolleybus Tour.
- November 23.—Railway Correspondence and Travel Society. Paper by Mr. S. Summerson, "Pre-Grouping Engines at Work in the 1900s." At the Liberal Club, Castilian Street, Northampton. 7.30 p.m.
- November 24.—Institute of Transport (West Midlands). Paper by Mr. J. B. Scott, "Economics of Long Haul Air Transport." At Control Tower Building, London Airport Central. 6 p.m.
- Institution of Railway Signal Engineers. Informal meeting, "Any Signalling Questions?" At Chippenham.
- Institute of Transport (Leeds G. and S.). Paper by Captain E. H. McCormack, "Some Reflections on Transport and Communications in the Life of a Major Seaport." At offices Leeds City Transport, 1 Swingate, Leeds. 7 p.m.
- Institute of Transport (Manchester G. and S.). Paper by Mr. H. J. Horne, "The Port of Preston." At Manchester Corporation Transport offices, 55 Piccadilly, Manchester. 1.15 p.m.
- Institution of Civil Engineers. Paper by Messrs. A. Dean, P. Chalmers and A. C. Layhe, "The Mechanisation of Railway Civil Engineering Maintenance Works." At Great George Street, S.W.1. 5.30 p.m.
- Omibus Society. Paper by Mr. G. Fernyhough, "New Towns and their Passenger Transport." At Victoria Coach Station, S.W.1. 6.45 p.m.
- November 25.—B.R. (Southern) L. and D. Society. Visits of the Society in Retrospect—an exhibition of films, slides and photographs. At Chapter House, St. Thomas' Street, S.E.1. 6 p.m.
- Railway Students Association. Paper by Mr. G. F. Fiennes, "Future Developments in Passenger Travel." At London School of Economics, Houghton Street, W.C.2. 6.15 p.m.
- Peterborough Railway Discussion Group. Paper by Mr. S. Robinson, "A Trader Looks at Railways." At Peterborough Technical College. 8.45 p.m.
- Institution of Mechanical Engineers. Thomas Hawksley lecture by Professor A. H. Cottrell, "The Effect of Nuclear Radiation on Engineering Materials." At 1 Birdcage Walk, S.W.1. 6 p.m.
- Institute of Transport. Visual aids meeting. Films, *Live and Let Live* and *On the Track of Efficiency*. At 80 Portland Place, W.1. 6.15 p.m.

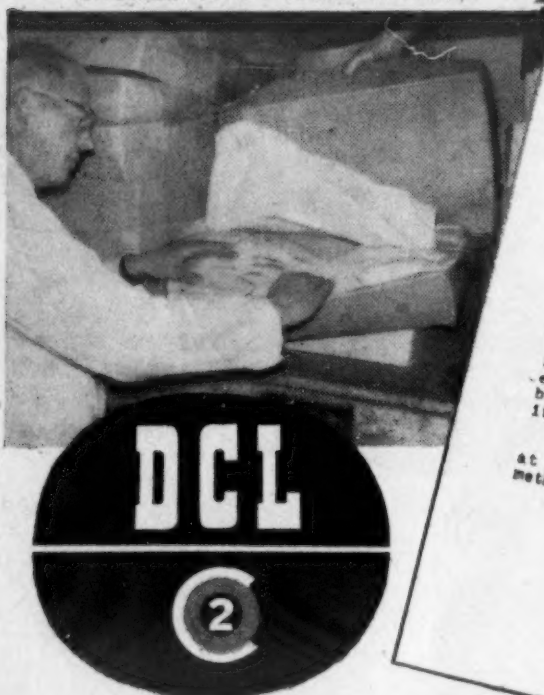
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Once again we wish to express our great satisfaction at this new means of chilling transport and hope that the same method will soon be employed by all long distance carriers.

Yours sincerely,

L. Chandler

P.P. L. Chandler (Smithfield) Ltd.

24th. September 1959.

MAIN-LINE ALL-DIESEL DEPOT

Maintenance Facilities at Ipswich

MODERN STEAM SHED MODIFIED

WHEN within the next few weeks the motive-power depot at Ipswich receives its final complement of diesel locomotives, it will become the first main-line depot on British Railways to be entirely dieselised. It will be recalled that Devons Road, L.M. Region, serving the former North London line, was converted earlier this year. Conversion of Ipswich from a steam depot with an allocation of 72 locomotives has been remarkably rapid in that the depot did not receive its first diesel until the spring of this year; it is expected that the entire process will have been completed in a period of eight months. The depot will then have an allocation of 59 locomotives, of which 45 will be available for mixed traffic and express duties and 12 for shunting.

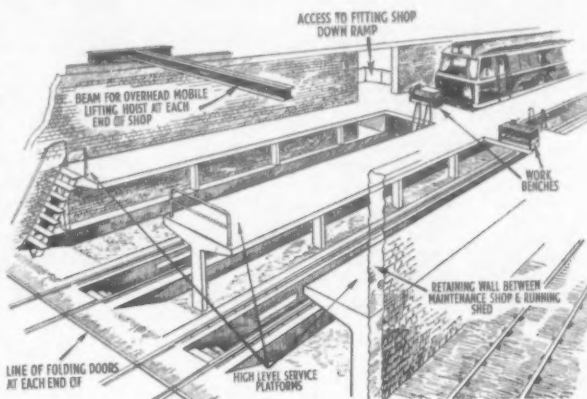
In considering these figures it must be borne in mind that many duties hitherto based on minor depots such as Yarmouth Vauxhall and Lowestoft are now worked by Ipswich, and that the 59 diesels will be responsible for working something like 45 per cent more duties than were worked by the 72 steam engines. It is therefore likely that if the depot had continued to be worked by steam something in the region of 100 locomotives would have been necessary to do the work now allocated to the 59 diesels. At the present time it is impossible to give a more precise statement of the exact saving of motive power, but it is of interest that when the whole programme for East Anglia is complete to the point where steam traction has been eliminated it is estimated that 249 diesel locomotives will be required. There are at present 688 steam engines in the area.

Depot Modifications

The relative facility with which the present project has been achieved is in large measure due to the fact that when the steam depot was reconstructed on up-to-date lines in 1953, the work was carried through with the future requirements of diesel traction in mind. As reconstructed at that time the depot had a new running shed of 10 roads, with a two-road inspection pit, adequate workshops for the repair and maintenance of loco-

purposes. The main features of the building are evident from the illustration, which clearly indicates how the maintenance work is carried out on three levels. The first depot to be erected in this country on this principle was that for the Steel Company of Wales at Margam in 1956.

Beneath the rails of each road there is a pit some 4 ft. deep which enables work to be carried out on the traction motors and brakes. These roads are lit by fluorescent lights mounted in each side of the pit and flush with the sides. To enable work to be carried out on the springs, bogies and other equipment mounted externally below the running plate there is a sidewalk to each pit some 3 ft. below rail level, whilst the raised platforms at 4 ft. 6 in. above rail level give access to the diesel engine, generators, batteries and cab. The overhead hoist at each end of the shop permits lifting of the top cowl and other sundry items of equipment. A feature of the new shop is the complete run-round layout of the high-level servicing platforms, facilitated by the



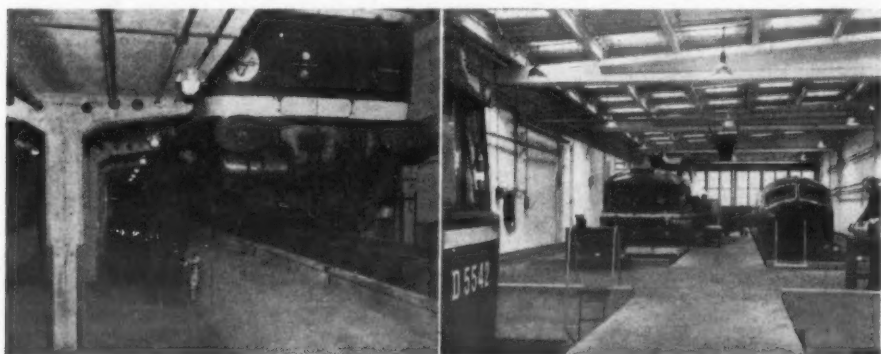
Sketch of four-berth diesel maintenance shop at Ipswich

bridgehead across the centre of the shop which gives direct access to the adjacent fitting and machine shop.

Periodic Inspection

The main use of this shop will be to ensure that each locomotive gets its routine cycle of maintenance and inspection at the proper periodic intervals. Experience has shown that the only way to obtain reliable results is to carry out maintenance on a regularly scheduled basis, beginning with a weekly general inspection and ordinary servicing, punctuated at monthly and three-monthly intervals with attention to specific items until the locomotive is due for general overhaul. Naturally, strict adherence to a maintenance programme of this order, coupled with the relative inflexibility of the diesel locomotive, implies use of more consistent engine diagrams than was the case with steam, and constitutes a major reason why the maximum efficiency of diesel traction cannot be achieved until steam workings have been eliminated.

Further equipment of the depot includes a fuel oil storage and dispensing installation with a tank



Eastern Region diesel locomotive maintenance servicing depot at Ipswich, showing sidewalk inspection level for bogies and brake gear; right, high-level service platforms

motives and a new office block which included excellent staff amenities and a large stores department.

To meet the needs of diesel traction modifications to the shed and the maintenance workshops have been necessary. Those concerning the running shed were relatively simple, consisting mainly of the removal of smoke chutes and flues, alterations to inspection pits, the provision of improved lighting and a general cleaning. As yet the coaling stage, water cranes, ash pits and other servicing equipment for steam locomotives remain, since it will be some time before all steam operation in the area is withdrawn. As now arranged the running shed has four through roads with inspection pits, the roads being farther apart than in a normal steam shed.

Maintenance Depot

The maintenance depot is adjacent to the running shed and separated from it by a wall which supports the integral roof. It has the same length as the running shed and contains two roads capable of housing four main-line locomotives for inspection

capacity of 75,000 gal. and facilities for storing and dispensing lubricating oils, together with provision for the removal of sump oil from the locomotives, and the mixing, storing and dispensing of chromate-treated cooling water. In addition there are facilities for battery charging, injector testing, filter cleaning, degreasing of components and a stillage truck to minimise handling. With the exception of the reinforced-concrete construction, the lubricating oil installation and a locomotive washing machine, which has yet to be erected, all the work has been carried out by the railway engineering staff.

Duties

The main duty of Ipswich motive power depot is to handle passenger and freight services between Yarmouth, Lowestoft, Ipswich and London, cross-country services between Ipswich and Whitmoor, and local services. On the staff side the change-over has involved the training of over 200 drivers from steam to diesel working. Since modernisation was first put in hand the total personnel based on the depot has fallen from well over 500 to 412.

B.T.C. TRAFFIC RECEIPTS: PERIOD NO. 11—1959

	Four weeks to November 1, 1959			Aggregate for 44 weeks		
	1959 (£ thousands)	1958 (£ thousands)	+ or -	1959 (£ thousands)	1958 (£ thousands)	+ or -
PASSENGERS						
British Railways	9,555	9,277	+ 278	120,408	119,499	+ 909
London Transport						
Road passenger services	4,327	4,301	+ 26	46,373	40,293	+ 80
Railways	1,906	1,893	+ 13	19,848	20,659	- 811
Provincial and Scottish Buses	4,399	4,362	+ 37	52,240	51,645	+ 595
Ships	315	271	+ 44	7,022	6,426	+ 596
Total Passengers	20,502	20,104	+ 398	245,891	238,522	+ 7,369
FREIGHT, PARCELS AND MAIL						
British Railways						
Merchandise and livestock	8,502	8,316	+ 186	82,168	87,625	- 5,457
Minerals	3,897	3,523	+ 374	36,886	38,084	- 1,198
Coal and coke	8,648	9,294	- 646	91,053	103,078	- 12,025
Parcels, etc., by coaching train	4,388	4,256	+ 132	45,206	44,559	+ 647
Total Freight British Railways	25,435	25,389	+ 46	255,313	273,346	- 18,033
Others	4,783	4,357	+ 426	47,016	45,598	+ 1,418
Total Freight, Parcels and Mails	30,218	29,746	+ 472	302,329	318,944	- 16,615
Aggregate	50,720	49,850	+ 870	548,220	557,466	- 9,246

Comparisons are affected by the London bus strike from May 5 to June 20, 1958



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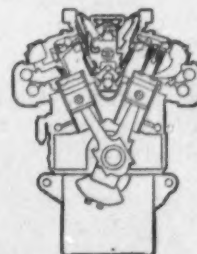
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THORNYCROFT MAXIMUM LOAD VEHICLES

A technical journal, in a recent article analysing road tests, had this to say about the "Mastiff":

"Of the three 9-tonners tested, the Thornycroft "MASTIFF" takes pride of place. It is a 14-ton gross design following in the footsteps of the high performance "TRUSTY" eight-wheeler made by the same concern . . . the "MASTIFF" offers low fuel costs, lively acceleration and a high standard of braking, whilst a heavy vehicle driver could ask for little more in the way of cab comfort, driving fatigue in particular being reduced by the quietness of the power unit."

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NEWS FROM ALL QUARTERS

Queen Street Low Level

Work is proceeding on the modernisation of Queen Street Low Level passenger station in Glasgow in preparation for the introduction of electric trains next year. A new entrance has been provided at the east end of the station, giving access from and to North Hanover Street.

Mansion House Station Moves Back

In connection with a City of London road widening scheme, the main entrance to Mansion House Station (District Line) on the corner of Queen Victoria Street is to be demolished. A new entrance to the station will be opened in about 18 months' time on the new building line.

Leeds Station Rebuilding Under Way

Preliminary work in connection with the scheme to combine Leeds City and Leeds Central stations into one modernised station, which involves the reconstruction of the bridge and track carrying the railway over the Leeds-Liverpool Canal, has now started.

The Language of Work Study

A 38-page glossary of terms in work study has recently been published by the British Standards Institution. Work study is the first of the management science techniques to formalise its jargon through an official body in this country. The glossary is divided into three parts. The first defines three general terms: work study, method study and work measurement; the second recommends terms to be used in method study; the third deals with terms relating to work measurement.

Birmingham Grade Intersections

Birmingham Corporation proposes to spend a further £2,822,103 on road improvements. The most important are underpasses at Yardley and Perry Barr, a flyover at Hockley Hill and a pedestrian subway at the Corporation Street-Bull Street junction. The Yardley underpass alone will cost about £1 million as there will be a considerable amount of property to buy. The underpass will carry the main A45 road from the London-Yorkshire motorway and Coventry under the Outer Circle bus route. At Perry Barr the same bus route will pass under the Walsall Road. The Hockley flyover will include the first stage of a new middle ring road.

London Road Projects 1960-65

The town planning committee of London County Council has submitted to the Minister of Transport a programme of major road works which it considers should be started in 1960-65. The list, which would involve expenditure estimated at £17 million, includes the following improvements: Gardiner's Corner, Aldgate; Strand underpass at Kingsway, and pedestrian subways at Charing Cross; new Woolwich ferries and landing stages; Euston Road (Albany Street-Gower Street); Waterloo Bridge (realignment, south approach); Old Street-City Road intersection; Finchley Road (Swiss Cottage); Western Avenue extension to Walmer Road; Bow Bridge; Knightsbridge-Sloane Street (stage II).

West German Rail Deficit

The German Federal Railway expects that its financial deficit, which last year amounted to DM.576 million (some £48 million) and in 1957 as much as DM.678 million, will for the current year total an estimated DM.450 million, or some £87½ million. By the end of 1960 the deficit should have been reduced to DM.350 million, or £29½ million.

Derelict Berlin Station to Go

It has been agreed between the East and West Berlin authorities to pull down the Anhalter station. This decision, which has been pending since 1952, arises out of the fact that the premises are in the West Berlin sector, the approaches are through the East sector, and services have long been suspended in consequence. The station takes its name from the Anhalt Travel Association which sponsored the opening of the line.

European Sleeping Car Co-operation

As from June 1 of next year the West German sleeping car and refreshment car company Deutsche Schlafwagen-und Speisewagen-gesellschaft and the International Sleeping Car Company are to operate sleeping cars and refreshment cars on a common basis between France and West Germany and in a number of other West European countries, including Belgium, Denmark, Italy, the Netherlands, Austria and Switzerland. The origins of the International Sleeping Car Company were in Belgium.

Liverpool-Crewe Signalling

Two new power signalboxes are to be built at Edge Hill and Weaver Junction on the London Midland Region Liverpool-Crewe section and the whole of the 36-mile track is to be equipped with colour-light signals in place of the present semaphore. The automatic warning system of train control will be installed. There are at present 27 mechanical signalboxes between Crewe and Liverpool Lime Street. Of these 11 will be retained and 16 removed. Three other new signalboxes are to be constructed. The Edge Hill box will replace four manual boxes.

First Decade of Interfrigo

Interfrigo, the international railway-owned company which specialises in refrigerated transport of perishable foodstuffs, has now been in existence for 10 years, and the success of the company in this period has exceeded the most optimistic estimates. Traffic increased from 21,000 refrigerated and insulated wagon loads in 1951 to 70,000 in 1958, and it is estimated that this year's total will be 85,000 wagon loads. Thus it has achieved a pre-eminent position in the international transport of perishable foodstuffs, principally bananas, dairy produce, fresh fruit and meat. The company has a fleet of 900 wagons equipped with the latest technical devices including electrical ventilation, and 300 new vehicles are under construction in Italy. In addition, it operates in international traffic over 10,000 refrigerated wagons belonging to its member administrations and their subsidiaries.

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Assure safe, positive stopping power and longer even wear. New tapered grooves in tread reduce stone trapping.
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Experience Counts -

45 Factories throughout the world. Firestone total sales exceed £1,000,000 per day.

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Firestone TYRES — consistently good



DRIVE
SAFELY

COMMERCIAL AVIATION

B.E.A. Announces Fare Cuts

GOOD UNITED RESULTS

A LONDON—PARIS return for under £10 (£9 19s.) as well as 40 per cent cheaper fares to Portugal and big cuts on other routes, are among more than 400 cheaper air fares announced by British European Airways this week. The fares were agreed at the recent I.A.T.A. traffic conference at Honolulu and, subject to Government approval, they will apply next spring and summer. Lord Douglas of Kirtleside, chairman of B.E.A., said about them in the *B.E.A. Magazine* that although B.E.A. had not yet succeeded in persuading all the other interested airlines that a general reduction in fares to economy-class level was justified, it had obtained agreement to a wide range of greatly reduced fares which would bring the price of air travel within reach of a much larger section of the public. This had been done by offering the lowest fares on carefully selected routes and at clearly defined times. These fares should have the effect of spreading the load more evenly during the summer peak as well as throughout the week. The extra traffic these generated at times when there was the capacity to carry it should more than compensate for any adverse effect on revenue of the reduced fares.

Weekend and midweek fares on both day and night tourist flights are being reduced for most journeys between the United Kingdom and France, Greece, Italy, Portugal, Spain and parts of Austria and Germany. Reductions will generally be greater in April, May and early June, when day fares valid for any day of the week will be cut by an average of 17 per cent. These fares will continue during the summer on Tuesday, Wednesday and Thursday flights. Athens, Lisbon and Moscow will have night flights for the first time at fares 16 to 39 per cent below existing fares. Tourist night fares to other destinations will also be reduced by between 8 and 25 per cent in the spring and by smaller margins in the summer. For journeys begun at Aberdeen, Belfast, Birmingham, Edinburgh, Glasgow, Inverness, Liverpool and Manchester, the percentage reductions will be slightly greater than from London. B.E.A. is negotiating for parallel reductions in fares to Gibraltar and Malta, as well as for rock-bottom fares on some of its domestic trunk routes next year. New fares will also be available to the Channel Islands, as already announced, and the Isle of Man.

Aeronaves de Mexico Buys from S.A.S.

Six Douglas DC6 aircraft have been purchased by Aeronaves de Mexico from Scandinavian Airlines System. The contract includes the sale of spare parts, and S.A.S. will also handle the training of ground crews and pilots for the Mexican airline. Another Mexican airline, Guest Aerovias, previously purchased three DC6s from S.A.S. and the remaining three DC6s of S.A.S.'s original fleet of 12 of this type will be used by Transair, of Sweden.

New Services Approved

The Minister of Aviation, after considering the recommendations of the Air Transport Advisory Council, has approved the operation of the following air services:—

An inclusive tour service by Eagle Aviation, Limited, between Birmingham and Palma from November 7, 1959, until April 30, 1960.

An inclusive tour service by Airlines (Jersey), Limited, between Jersey and Gibraltar on October 17 and 31 and November 14, 1959, only.

A normal scheduled service to be operated by B.K.S. Air Transport, Limited, between Glasgow and Ostend from September 11, 1959, to March, 1960.

A normal scheduled service to be operated by B.K.S. Air Transport, Limited, between Liverpool and Ostend from September 11, 1959, to March, 1960.

A normal scheduled service between Southend and Groningen (Eelde) by Tradair, Limited, from September 30, 1959, to July, 1960.

An inclusive tour service between Jersey and Lisbon by B.K.S. Air Transport, Limited, from October 3 to November 28, 1959.

An inclusive tour service by B.K.S. Air Transport, Limited, between Jersey and Palma from October 10, 1959, to April 2, 1960.

A normal scheduled service by British European Airways on the route London—Algiers—Malta (optional stop), for 10 years from April, 1960 (from April to October each year).

A normal scheduled service to be operated by Derby Aviation, Limited, on the route Cardiff—Bristol (optional)—Ostend from September 18, 1959, to September 30, 1960, to be operated during period May—September each year.

Good Results of United

New high levels in nine-month earnings and revenues have been reported for United Air Lines by Mr. W. A. Patterson, president. Record net earnings of \$12,691,783 and a gain of \$1,008,612 on aircraft sales produced \$13,700,395 for the first nine months of 1959, or \$3.66 per average share outstanding. In the corresponding 1958 period net earnings were \$10,188,503 and gain on aircraft sales was \$312,215—a total of \$10,500,718 or \$3 per share. Third quarter net earnings were \$6,129,064 and gain on aircraft sales amounted to \$532,244 for a total of \$6,661,308, or \$1.74 per share. Revenues rose to a new peak, totalling \$257,977,822 for the nine months, a 9 per cent increase over 1958. Third quarter revenues amounted to \$91,548,236 as compared to \$88,405,934 a year ago. Nine-month operating expenses were up 7 per cent over last year, but only 5 per cent for the third quarter. "Although revenue passenger miles continued to increase over the nine months of 1959, there was perceptible slowing in the rate of gain during the third quarter," Mr. Patterson said. "This resulted from decreases in scheduled mileage which were made because our DC8 flight training programme reduced the availability of pilots for piston-engine operations."

B.O.A.C. Reducing Freight Rates

Charges for air freight by the British Overseas Airways Corporation on the North Atlantic, subject to governmental approvals, will, as already foreshadowed, be sharply reduced for a wide range of goods from April 1, 1960. Reductions of up to 40 per cent on existing commodity rates will be given on certain goods shipped by B.O.A.C. between the United Kingdom and New York and Montreal. Examples of the new rates, which will apply to shipments of 45 kg. and more, include 5s. per kg. for foodstuffs, shoes, magazines, agricultural machinery and adding and computing machines (this machinery receives a still lower rate if shipped in large quantities); 5s. 2d. per kg. for clothes and textiles; 5s. 9d. per kg. for leather goods, artificial flowers, radio and television equipment, electrical household appliances and sports goods; 5s. 10d. per kg. for pottery, china and glassware, surgical and scientific equipment, optical goods, films and film equipment; 6s. 4d. for gramophone records; and 6s. 6d. for pneumatic machinery and musical instruments. The forwarding agents, and the shippers of mixed classes of goods, also benefit from the new agreement. They will receive a rebate of 35 per cent on all shipments of 500 kg. or more to North America.

AN EASTERN REGION RETIREMENT



Arthur James White

Mr. A. J. WHITE

• • • • •

As already recorded in MODERN TRANSPORT, Mr. Arthur James White, assistant general manager of the Eastern Region of British Railways, is retiring for health reasons, although he will continue to assist the region in an advisory capacity in connection with large reconstruction projects; it is understood that for the time being at least he will be engaged primarily upon the replanning of Kings Cross. Educated at Bedford Modern School, he joined the Great Northern Railway at Peterborough in 1913 and served during the 1914-18 war with the Artists' Rifles, being commissioned to the Northamptonshire Regiment. When the traffic apprenticeship scheme was inaugurated in the Southern Area of the London and North Eastern Railway in 1923, Mr. White secured the first place by examination and after periods of training in the commercial, operating and locomotive running departments, held a succession of posts in the Eastern Counties, at Edinburgh and at York, before entering the chief general manager's office in 1929, as assistant to the industrial agent. He was appointed commercial advertising agent to the L.N.E.R. in 1933. From 1940, he was closely associated with the formation of Home Guard units and later commanded the 17th City of London Battalion. He became chief of police, Southern Area, L.N.E.R., in 1943, advertising manager, L.N.E.R., in 1945 and advertising officer to the Railway Executive in 1948. In October of that year he went to the Eastern Region as assistant chief regional officer, being retitled assistant chief regional manager in 1954 and subsequently assistant general manager. In all these capacities he has continued to be responsible within the general management for forward planning, engineering and supply. With his special personal interest in architecture and industrial design he has laid much store upon appearance combined with efficiency and he was, *inter alia*, the designer of the British Railways totem.

IN PARLIAMENT

Traffic Corps Bill

MOTORWAY HARD SHOULDERS

A MONG the private members' Bills presented and read the first time in the House of Commons on November 11 was a Road Safety Bill to amend the law relating to highways and road traffic, including licences, the sale of vehicles, lighting, insurance, and tests for drunkenness. It is sponsored by Mr. R. G. PAGE and would also provide for the appointment of a commissioner for road safety and to define his functions; to provide for a corps of safety enforcement officers; and to amend the law relating to compensation for bodily injury, death, and damage to property. Also presented were Bills to restrict the lower age limit at which licences would be issued to drive motor cycles and mopeds and to render valid in the U.K. driving licences issued in Northern Ireland.

Harwich—Felixstowe Ferry

Replying to an adjournment debate on the proposal of British Railways to withdraw its Harwich—Felixstowe passenger ferry service, Mr. JOHN HAY, Joint Parliamentary Secretary, Ministry of Transport, said that it should properly go before the area consultative committee. Last year, he stated, the ferry lost 10d. on every one of the 103,573 passengers carried. Only 50 a day are carried during the winter months.

Motorway Accidents

Mr. M. LIPTON asked the Minister of Transport whether he had investigated the causes of the accidents that have taken place on the M1 motorway and what action he was taking to deal with their causes. Mr. ERNEST MARPLES told him that investigation of the causes of accidents was a matter for the police in the first instance. It would be unwise to draw general conclusions from the first few days' operation of the new motorway when drivers were unaccustomed to motorway driving techniques, especially as some of the accidents occurred in dense fog. He was having all accident reports analysed very carefully and would take such action as was shown to be called for.

There was an interesting comment from Mr. JOHN HAY, the Joint Parliamentary Secretary, in a later reply on the construction of the "hard" shoulders to the motorway, which have in some instances proved unable to support the weight of heavy lorries making use of them. They were not, he said, intended "to be used as much as had proved necessary while traffic was getting used to the motorway" and experience now may be misleading. No special precautions are being taken on the road to prevent accidents in foggy weather, he added. It would be unwise to impose an arbitrary speed limit which may or may not be appropriate at any particular time or place.

COLLEGE OF AIR TRAINING

Opens at Hamble in May

FOR many years the output of pilots from the armed services has provided the great majority of pilot recruits for civil aviation, but with the reduction in size of the Services it seemed unlikely that this situation could prevail for very much longer. Accordingly the then Ministry of Transport and Civil Aviation in conjunction with the two British airways corporations and the Ministry of Education decided that arrangements must be made to help young men who had recently left school to become civil airline pilots, with the result that a new College of Air Training is to be established at Hamble, Hants, in May, 1960.

In the past, liability for National Service and the desirability of providing employment for the many pilots released from the Services made it impracticable to bring into being a civil basic pilot training scheme. Such flying schools as have specialised in this type of training have only been able to do so at a cost generally beyond the means of parents. Now every year a small number of young men of high calibre will be selected and trained professionally as pilots at a cost within their reach.

First for B.O.A.C.

The first demand on the new college is being made by B.O.A.C., who will be sponsoring the first intake of 50 cadets. Applications for this first entry will be due at the end of November and those selected will start the course in September, 1960. In subsequent years there will be a requirement on behalf of both B.O.A.C. and B.E.A. and the intake is expected to be a minimum of 40 cadets a year for each corporation. The British Independent Air Transport Association (B.I.A.T.A.) has been invited to take part in the training scheme and to nominate a governor to the college.

For such training young men of high calibre are sought; they must be at least 18 but under 20 years of age on entering the college, although exceptions will be made in the case of holders of university degrees who will be allowed to enter up to 23 years of age. In England and Wales they will be required to have passed in a minimum of five different subjects in the General Certificate of Education, including mathematics, English and one science subject, with two passes at advanced level. For Scottish candidates three passes in the higher grade of the Scottish Leaving Certificate and two in the lower grade, or four higher grade passes, will be required, including mathematics, English and one science subject. Cadets must be British subjects from the United Kingdom and educated in the U.K. to be eligible for the Government grant, though Commonwealth candidates will be eligible at full cost.

Each cadet will spend two years at Hamble before taking up employment with one of the airlines. Thereafter, he will continue his training with the airline and will join the payroll of the airline as soon as he leaves the college.

Cost

The cost of training the cadets, estimated at an average of £4,000 for each cadet at the maximum intake, though initially it will be higher, will be shared between the airlines and Government. The Exchequer grant will be £1,000 for each cadet trained and in addition there will be standard fees and maintenance costs of about £380 a year. Local education authorities are being invited by the appropriate Ministries to consider cadets for suitable awards. The balance of the cost will be borne by the sponsoring airlines but it is intended that each pilot trained and employed by them will then, over a period, contribute a sum of £1,000 towards the cost.

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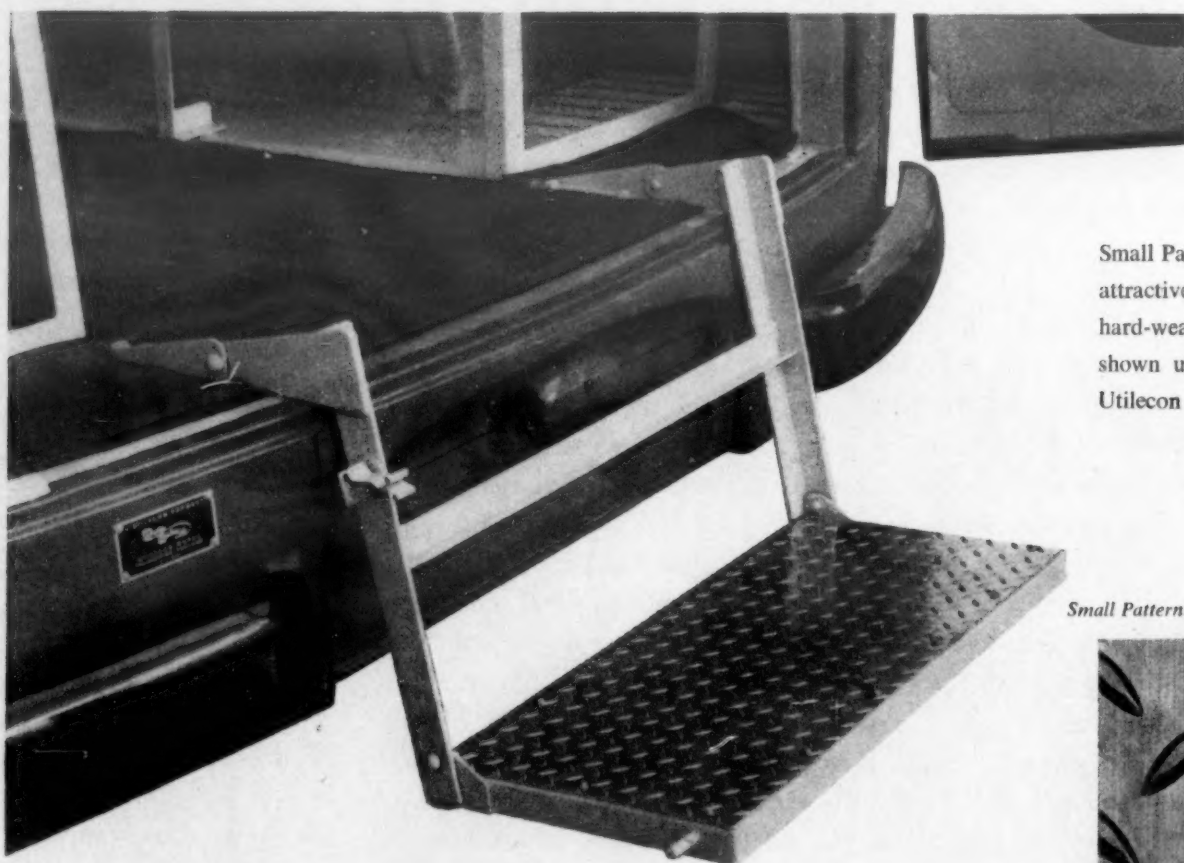
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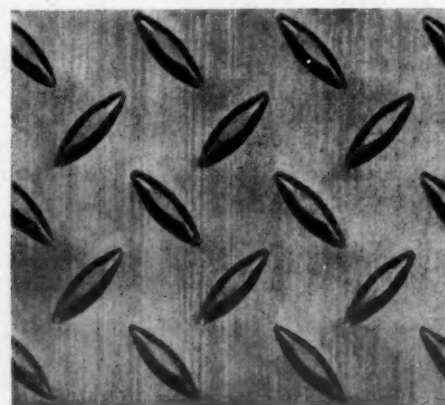
BRITISH ALUMINIUM

P-G-P TREADPLATE



Small Pattern P-G-P* Treadplate presents an attractive non-slip surface, which is both hard-wearing and easy to clean. It is here shown used for the folding rear step of a Utilecon by Martin Walter Ltd.

Small Pattern P-G-P Treadplate—full size. *Regd. Des.



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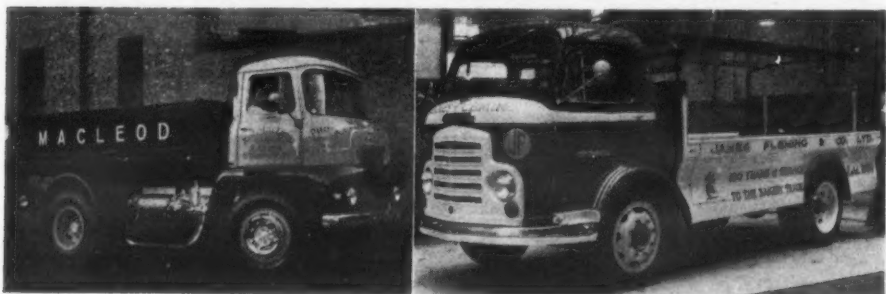
SCOTTISH SHOW IN PICTURES



Kenex 12-seat conversion of Standard Atlas van used in free shuttle service between outlying car parks and Kelvin Hall, in a commendable park and ride experiment



Martin Walter mobile shop with translucent plastics roof on Austin Omnivan; right, 12-seat Kenecoach conversion of Ford Thames 15-cwt. van



A Dodge forward-control 7-ton tipper arriving at Kelvin Hall; right, a Karrier Bantam with Central Coachworks body having raised floor level for convenient sack loading and concealing side valences



Alexander 29-seat coach body with plastics front and rear ends on Albion Nimbus underfloor-engined chassis; right, 41-seat Burlingham coach on Ford Thames passenger chassis



A.E.C. Mercury Mark II with Park Royal cab and Thornycroft Mastiff with Thornycroft plastics cab; right, Foden FED6/30 with Pilot 11 cu. yd. (40,000 lb.) body



Two bodies by A. C. Penman: a baker's shop with alloy-framed plastics body, which can also be used as a normal delivery van and, right, detachable livestock carrier in corrugated light alloy and alloy framing and platform on 7-ton l.w.b. Austin chassis

Some new diesels

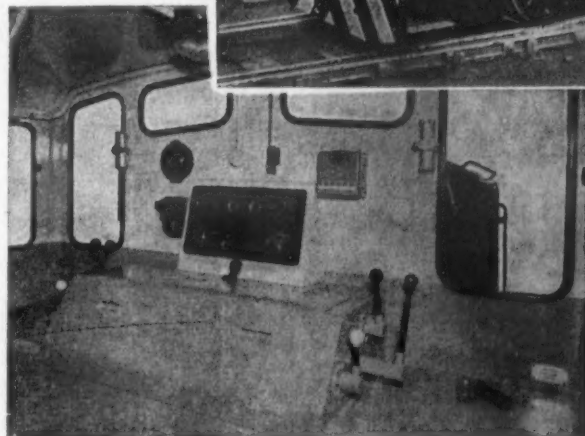
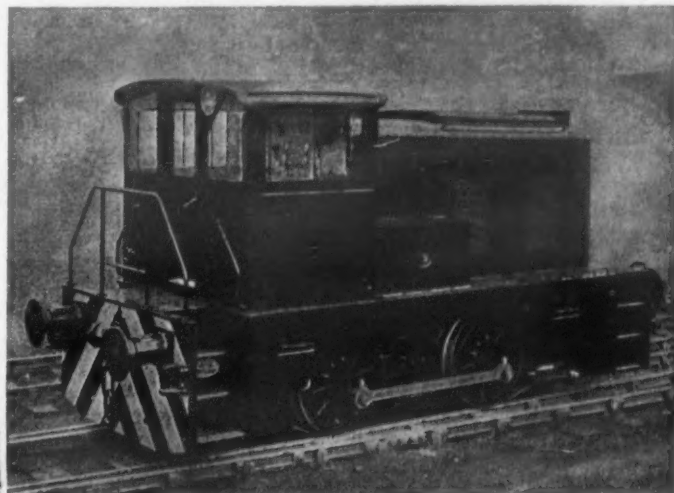
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INDEPENDENT AIR TRANSPORT

IN his foreword to the report of the British Independent Air Transport Association for 1958-59, its president, Mr. Eric Rylands (Skyways) who has now been succeeded by Mr. C. J. Stevens (B.K.S. Air Transport), lays stress on the hopes of the independent operators that the new Government will give them the scope that they have demanded for some years. "The main problem," he says, "is how to regulate the air transport industry so that both the airways corporations and the independents form complementary and expanding instruments working together to make the strongest possible British civil air transport contribution to international operations. This is no question of mere prestige; it is a matter of vital concern to British enterprise.

"It is essential to this end that the independents be allowed to develop these sections of the industry which they have created; that they should be encouraged to develop new forms of service; that they should be protected and not penalised; that success should be promoted and not frustrated and that security of tenure of rights be assured." Mr. Rylands looks forward to the establishment of an independent licensing authority.

The annual report says that although the year under review resulted in the continuing expansion of the traffic of the independent airlines on a general scale, the expansion did not measure up to that required to provide the soundest commercial development of this section of the air transport industry. Such a position was forecast in the last report when it became apparent that recession and other factors would produce poor commercial results and decreasing activity.

In general terms traffic expanded in a number of cases in varying degrees, whilst in others it remained static or declined. The result was that the total capacity produced on all operations increased to 171 million capacity ton-miles which was approximately 24 per cent of the total United Kingdom air transport effort. In terms of passenger

traffic, 1,439,354 passengers were carried in the following categories of operations:

General scheduled services	792,797 (55% of total)
Inclusive tours	172,755 (12% " ")
Charter and contract	331,717 (23% " ")
Air troopng	142,085 (10% " ")

The passenger-miles performed on these operations produced the following position:

General scheduled services	189,068,000	(22% of total)
Inclusive tours	116,076,000	(14% " ")
Charter and contract	130,061,000	(15% " ")
Air trooping	419,557,000	(49% " ")

The total capacity offered on scheduled services increased by 12 per cent over that offered in the previous year, whilst load ton-miles increased by 20 per cent which produced an overall load-factor of 64.1 per cent. The following table shows the passenger operations of the independent airlines on the different categories of scheduled air services to March 31 of each of the past five years:

	1984/5	1985/56	1986/87	1987/88	1988/89
Channel Islands	69,000	98,000	153,000	209,000	187,000
Isle of Man	54,000	67,000	81,000	102,800	80,000
Other internal	25,000	54,000	64,000	38,000	32,000
International	102,000	127,000	158,000	239,000	229,000
Vehicle taxes	112,000	182,000	156,000	171,000	156,000
Colonial coach	10,000	13,000	18,000	17,000	17,000
Inclusive tours	23,000	46,000	86,000	137,000	120,000
	358,000	552,000	743,000	915,000	850,000

The number of passengers carried therefore declined (or remained static) on all operations except the short cross-Channel and inclusive tour operations. The normal scheduled services (international services for first and tourist class traffic) operated by the independent airlines did not produce the results aimed for and traffic decreased. The primary cause was undoubtedly the effect of the unsettled economic conditions which existed at home and abroad. Only four new services were introduced during the year.

Those services currently in operation varied in their potentials and prospects. Some—principally from the main provincial centres—had been en-

couraging, but required greater freedom of action as regards frequencies, fare levels, etc., for their full possibilities to be exploited. In other cases, routes were basically of light traffic density and present greater problems which can only adequately be met by means of the creation of more balanced patterns of operations which, under the present system and limitations, are difficult or remote.

Services combining surface transport and air transport to provide a cheap, through journey have continued to promote new traffic and a number of new such services was put into operation during the year. Conditions imposed by foreign governments (including the imposition of increased fares) were a source of difficulty in the attempts by the operators concerned to attract new passengers to the air.

It was now a number of years since any new services in this category of activity were approved and Colonial Coach services were now only operated to East and Central Africa and Cyprus. A large number of attempts was made by various operators to introduce services to other colonies, but these have all been unsuccessful and, following strong objections by the nationalised corporations, the applications have been rejected by the Air Transport Advisory Council.

The Association does not wish to question the decisions of the Council and accepts its findings, but it must express the view that it is unfortunate that, within United Kingdom territories where international complications do not exist, it has not been possible for a policy to be implemented which would promote cheap air travel between the U.K. and those territories.

Also unresolved was the future of the existing Colonial Coach services to which reference was made in the last report. It was pointed out at that time that the Government had decided that B.O.A.C. should be allowed to introduce a similar type of service alongside the services introduced and developed by the independent airlines. This decision, however, would also introduce strict limitations on the frequencies and capacities of the independent airlines to the extent that it would be doubtful whether the independent companies would be able to continue to participate in the market they had created. The necessary decision had still not been taken and the future of these services therefore remained obscure. This could only be regarded as unsatisfactory and as detrimental to the best interests of the industry.

Inclusive tour services promoted considerable discussion and argument and probably accounted for the majority of the calls made on the facilities of the Air Transport Advisory Council. To some

extent, this was out of proportion to the traffic which this type of service represented, but nevertheless it was a feature of present-day air transport in Europe and formed an important part of the operations of the independent airlines. A new market having been created, it should be placed on a more secure and recognised basis in order that forward planning and investment might be made. To some extent this had been done by means of longer-term approval of operators for the carrying out of these services, but this was applicable to the U.K. only and such approval was not given by foreign governments. This, however, is unfortunately only one aspect and there remained a substantial area in which the future position of the independent airlines was in serious doubt.

To a large extent the problem was international and there was as yet no real recognition of the long-term needs of the industry for the promotion of inclusive tour services, or of the benefits which could be derived from them in terms of tourism, etc. But there was also no clear position in the United Kingdom as regards the balance between such services and the ordinary scheduled services, and the balance and the roles of B.E.A. and the independent airlines. Inclusive tours had now become a feature of air transport and it was to be hoped that the question of who should carry the traffic could be resolved on a national basis which would take full account of the broader issues of sound commercial requirements and permit all concerned to concentrate on the question of its maximum expansion.

The tonnage of freight uplifted—and the freight ton-miles performed—on scheduled all-freight services showed the largest increases in the scheduled operations of the independent airlines. Although this was largely attributable to the number of vehicles carried, pure freight operations improved substantially, particularly on the short cross-Channel routes where combined air-surface services have continued to meet expectations that they had good prospects for the future as a means of promoting freight traffic.

Beyond these operations (and those to Africa) there had been no new developments in this field and there are still no indications of a major breakthrough to a more general exploitation of the air freight market. The volume of air freight on all operations (as supplementary freight, all-freight and on charter operations) was growing steadily and, in some cases, at a higher rate than any other type of traffic. But it still occupied a minor role. Efforts by independent airlines to attract more freight to the air continued to be thwarted by lack of flexibility, particularly as regards freight rates which, in many cases, had been forced to levels in excess of those which the operators were prepared to offer and which were considered to be necessary for a full-scale attack on the problem.

Traffic on the internal services operated by the independent airlines within the United Kingdom decreased generally in the year under review. This was one of the major reverses of the year in the sphere of scheduled air services and was not confined to the lower density routes, but was most marked on the more popular routes to the Channel Islands and the Isle of Man. The decline in traffic now experienced could easily be explained, but a contributory cause had undoubtedly been the fare increases imposed on the operators in some circumstances which had had a depressing effect at a time when unsettled economic conditions would in themselves make expansion difficult.

The vehicle ferry services had a successful year in that 66,000 cars were carried, an increase of 34 per cent. This improvement marked the efforts of the operators concerned in the application of cheap rates and the provision of an efficient specialised service.

It was noted in the last report that B.I.A.T.A. was concerned by increasing competition in the world charter markets from foreign operators, many of whom were more favourably placed than the British independent airlines and enjoyed direct or indirect support from their governments. This was particularly so in long-haul operations where the independent airlines did not have suitable equipment and it was stated that efforts were being made to reverse this situation. Modern four-engined equipment has now been introduced and had brought about a considerable change which was gratifying and clearly in the British interest.

The number of troops and families carried by the independent airlines increased by 3 per cent to 142,000. Considerable changes took place during the year, however, in the general arrangements under which air troopings operations are conducted. In previous years, air troping contracts have been for short periods and were spread over a number of companies. The policies laid down by the Service Departments had been (and are) that, so far as possible, the newest types of aircraft should be used for air troping. In recognition of this policy, the independent airlines had provided new aircraft and air troping is now carried out entirely by turboprop aircraft (Britannias and Viscounts) with the exception of one small operation in the Mediterranean area.

It was accepted that air trooping operations should be carried out by modern aircraft, but the concentration which this meant had resulted in substantial difficulties in that there had not been sufficient freedom of action for the older (but still satisfactory and adequate) aircraft to be used when displaced by the new aircraft. There had, therefore, been a general disturbance during the year leading, amongst other things, to redundancy of aircrew and other personnel. Air freighting under contract to Government Departments continued at a high level, but decreases in other operations led to an overall decrease in the total freight operations in this sphere.

American Goodyear Development

SMOOTHER and safer passage of vehicles over railway level crossings is provided by the use of rubber pads set in the road surface between the tracks. Developed by the Goodyear Tire and Rubber Company, rubberised crossings have been installed at a number of places in the United States of America recently, one of them over a double set of curved tracks at Wooster, Ohio. This is said to be the first time that rubber pads have been tried on a curve.

Goodyear spokesmen claim that rubber crossings will last about 20 years, that ice will not hold on the pads and that bumps are completely eliminated.

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NEW TYRES AT KELVIN HALL

For Service On Motorways



ONE of the features evident in a tour of the component and accessory manufacturers' stands at the Scottish Motor Show, which closes at Kelvin Hall, Glasgow, on November 21, is the number of new or recently introduced tyres on public display here for the first time. Most manufacturers have now developed tyres, both for cars and commercial vehicles, which will provide completely satisfactory service at the sustained high speed of driving on motorways. But this is an evolutionary rather than a revolutionary change, as there has been continuous improvement in tyre efficiency over the years in keeping with the gradually rising performance of road vehicles generally. What is seen in this latest generation of tyres is just one more step towards greater efficiency, which stems from the development of new tyre-cord materials and sidewall and tread-rubber compositions, greater knowledge of the causes of heat build-up and its effects and prevention and of more-efficient production machinery and practices.

The tyre industry in Britain is strongly entrenched in Scotland, being represented by the

India G17 tyre last year to denote a new type of casing and advanced compounding techniques. The new casing, based on extensive research on tyre textiles and building methods, is said to be considerably stronger than earlier products, giving greater foundation strength to sidewalls and tread and to help towards cooler running. Red Flash casing construction and compounding is now extended to the full range of India commercial vehicle tyres.

Double Kerbing Rib

An entirely new India tyre exhibited for the first time is the Super Low Loader. This has a non-directional tread pattern designed to provide powerful traction, a high degree of lateral stability, long life and even tread wear under stop-start conditions. A noteworthy feature is a broad kerbing rib on both sidewalls at the most vulnerable position, thus eliminating the need to pay special attention to the position of the kerbing rib when changing tyres. Familiar India products now seen in Red Flash construction are the G17, a road tyre; the Rufway, built with both nylon and rayon cords specially for operation on rough abrasive surfaces or winding or heavily cambered roads; the All Purpose, with bold tread and shoulder lugs for on- or off-road use; the Light Truck, specially developed for delivery vans, ambulances and so on with a tread resistant to wear caused by extra acceleration and braking; and the Low Loader, which is similar to the new tyre already described, but has a kerbing rib on one side only.

Growing appreciation of the benefits of the Safety Steel Shield introduced in the U.S. Royal Fleetway highway tyre in 1956 has led the North British Rubber Company to embody this feature in its on- or off-road tyre — the U.S. Royal Super Fleetmaster. This type of tyre with cutaway sections to show the 40,000 strands of fine steel wire embedded in the tread is a special feature of the company's stand at Kelvin Hall.

Among the benefits claimed for the Safety Steel Shield are the provision of a barrier to penetration in the vital tread area while retaining maximum flexibility due to operation at standard pressures, the prevention of groove cracking and tread separation and a casing that can be remoulded many times. Other features of U.S. Royal tyres brought out on the stand are beads built to fit the width and depth of modern rims, tread rubber produced by an exclusive Micro-Mixed process and a work-moulded contour in which the casing is moulded to inflated shape.

The Avon India Rubber Co., Limited, shows a range of commercial vehicle tyres, including the Highroad, for long-distance and general haulage; the Highway Monarch, a premium tyre for general haulage and p.s.v. work; the Traction Mileage, in a 16-in. range for on- and off-road service and in a 20-in. range for quarrying and constructional site work; and the Express Delivery, claimed to combine superior traction and toughness for frequent-stop work.

Dunlop Power Grip Major

Shown for the first time by the Dunlop Rubber Co., Limited, is the Power Grip Major, which has been developed to replace the Dunlop Power Grip tyre in conditions where improved wear and increased resistance to cutting are needed without loss of tractive properties. The new tyre, which

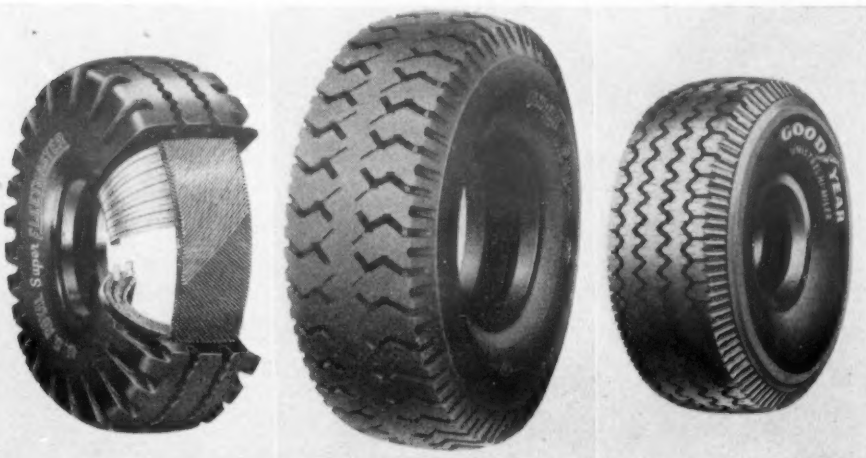


New Dunlop Power Grip Major designed for heavy-duty vehicles used on opencast mining and timber felling sites and in quarrying and constructional work

Goodyear Tyre and Rubber Co. (Gt. Britain), Limited, with what is claimed by the company to be the world's most modern tyre factory at Garscadden, near Glasgow; India Tyre and Rubber Co., Limited, Inchinnan, near Glasgow; and the North British Rubber Co., Limited, Edinburgh. The principal reason for the establishment of the rubber industry in Scotland dates back to the middle of the 19th century, when the industry was in its infancy. It was a peculiarity of 19th-century English patent law that it had no force north of the border, so that patents relating to the vulcanisation of rubber granted to Hancock in England did not apply in Scotland, any more than did Goodyear's American patents in the same field. Thus the Scottish door was open to enterprising business interests.

Goodyear Unisteel

Occupying a prominent place on the Goodyear stand is the company's new Unisteel commercial vehicle tyre—a radial steel cord tyre with additional steel breaker strips to stabilise the tread—which has been designed for high-speed operating conditions. In common with other radial steel cord tyres, following the pattern set by Michelin with the X tyre in 1948, the Unisteel provides a number of potential advantages over conventional construction in certain types of operation, includ-



Three from Scottish factories: U.S. Royal Super Fleetmaster produced by North British Rubber Company opened up to show the safety steel shield; new India Super Low Loader in Red Flash construction with kerbing strip on each side; and, right, new Goodyear Unisteel with radial steel cords and steel breaker strips under the tread

ing increased tread life, improved traction, greater puncture and cut resistance and increased sidewall flexibility.

Among the established Goodyear commercial vehicle tyres on display are the Traction Hi-Miler, which is available of either rayon or nylon cord construction; the Hi-Miler Extra Tread, of similar general construction but with thicker tread claimed to run cooler and longer on long high-speed runs; the specialist Road Lug designed for vehicles operating partly off the road; and the Cross Rib, which is produced only with 3-T nylon cord, has a substantially flat tread with deep cross ribs, submerged ribs buttressing the shoulders and wide open grooves that are said not to hold stones. The exclusive Goodyear 3-T nylon cord construction is claimed to give the greatest-ever resistance to heat, blows, bruising and flex fatigue, thus providing the Cross Rib tyre with an outstanding remould performance.

India Red Flash

The India Tyre and Rubber Company has appropriately chosen to introduce a new range of Red Flash commercial vehicle tyres at the Scottish Show. The Red Flash was first announced on the

has been extensively tested overseas, is available in a number of different sizes for vehicles used on opencast mining and construction work. Also shown are the established Highway, Highway Major and Roadtrak Major tyres, rubber mud wings, a range of Dunlop accessories and Dunlopillo seating. There is a panel devoted to car disc brakes, Pneumair air suspension for commercial vehicles, a range of flexible pipes and the rubber suspension units developed by Dunlop for the new B.M.C. small cars.

Firestone Tyre and Rubber Co., Limited, shows examples of its range of commercial vehicle tyres, including the Firestone All-Traction, for on- and off-road general service; the All-Traction 100, for severe off-road operations; and the Firestone Transport, for highway service. The Transport tyre embodies a wide flat tread with even-depth grooves, in which smooth flat elements alternate with shoulder grooves designed to resist scuffing and dissipate heat.

Henley's Tyre and Rubber Co., Limited, introduces a new all-purpose commercial vehicle tyre in the Maxi Miler. This has a wide flat tread with

(Continued on page 16)

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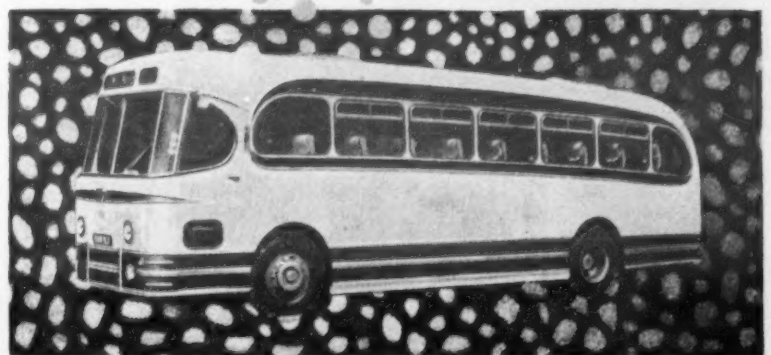
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SWINDON-BUILT DIESEL

Problems of Design

THIS week a most valuable paper has been presented to the Institution of Locomotive Engineers by Mr. G. E. Scholes, chief technical assistant (locomotives), chief mechanical and electrical engineer's department, Swindon, Western Region, on that region's Swindon-built diesel-hydraulic locomotives. These units are based on the 2,100-h.p. V200 type BB locomotive of the German Federal Railway, but had to be redesigned as the V200 was 10 in. too high and 16 in. too wide for the B.R. loading gauge. The machines are built under licence from Krauss-Maffei, include two Maybach MD650 engines developing 1,135 b.h.p. each at 1,530 r.p.m. (except on three engines where they are set at 1,056 b.h.p. at 1,400 r.p.m.), and Metydro K104 transmission. The engines are now being made by Bristol Siddeley at Coventry and the transmissions by J. Stone and Co., Limited, Deptford. The Laycock-Knorr brake system provides a compressed air brake in the locomotive while controlling a vacuum-braked train.

Comprehensive Paper

The paper dealt with design considerations, the structure of the self-supporting shell of the body, power units, cooling, transmission, electrical control gear (involving 2½ miles of wire), brakes, carriage warming, styling and the problems of building such machines in a works hitherto devoted to the steam locomotive. Performance tests are also given. It is proposed to build 71 to the present basic design; there will also be five North British 2,000-h.p. CC locomotives of the D600 class and 58 North British 1,000-h.p. D6300 class, making a substantial nucleus of diesel-hydraulic locomotives, to be augmented later on the Western Region by other designs to cover all operating requirements.

Discussing the possible difficulty with a BB wheel arrangement of lack of brake power on non-fitted trains, Mr. Scholes suggests that their ultimate abolition will resolve the difficulty. In the meantime auxiliary drum or disc brakes could perhaps be fitted to some locomotives to share the braking duties, but this in most cases would be an intolerable complication in design. The use of double instead of single brake blocks at each hanger might mitigate the trouble to some extent and this feature is being incorporated in a larger locomotive now under consideration. The deliberate choice of a CC locomotive in place of a BB type which could, except for braking non-fitted trains, do all that was required of it, could not be justified, especially as even the CC arrangement would not provide braking capabilities commensurate with haulage capacity.

Exit the Non-Fitted Train

Possible use of two 1,000-h.p. BB locomotives in multiple would be a considerable improvement, but would be generally uneconomical. Steam locomotives could be used to haul non-fitted trains until both became obsolete, but this course is not feasible where complete dieselisation, area by area, is programmed. The only remaining, and perhaps the only sensible, course of action is to run

a few fitted vehicles in an otherwise non-fitted freight train to ensure sufficient braking power. Where diesel locomotives are concerned this means in effect abolishing non-fitted trains.

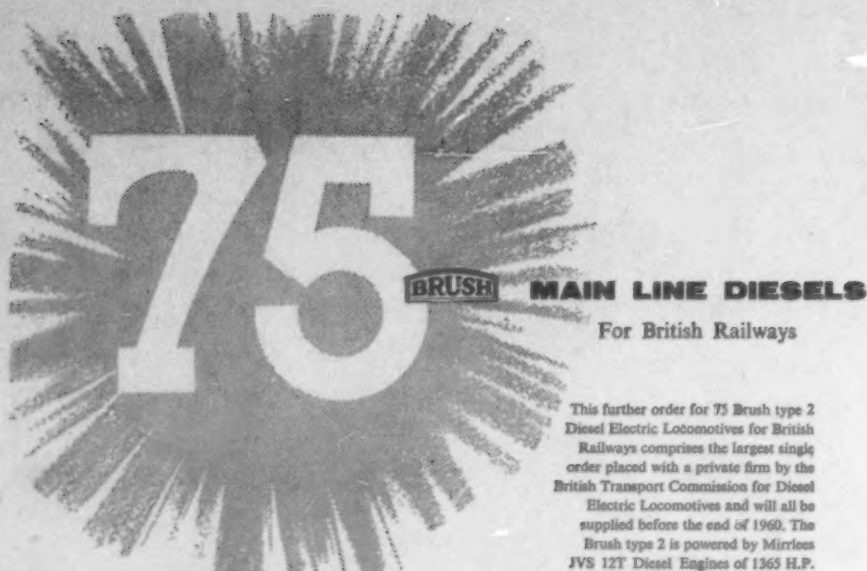
One of the greatest worries of the diesel locomotive designer, of the user and of the maintenance staff is the oil-fired steam boiler for carriage warming purposes. On the first 13 D800 Class, Spanner boilers of 2,000 lb. per hour steaming capacity are being used, whereas the next batch are being built with Stone-Vapor equipment of similar capacity. These boilers are very different in principle, the former being of the vertical fire-tube type and the latter of the so-called flash type wherein steam is generated in a very long continuous coil of copper pipe. One of the major problems in this connection is that of the treatment of feed water which may be picked up in any district and which may therefore vary very greatly in harmful content.

For both types of boiler the Western Region is installing Alfloc briquette treatment on the locomotives and it is hoped that this, in conjunction with periodical acid washing of the Stone-Vapor type of boiler, will result in reasonably trouble-free service. It is possible that later diesel locomotives will be called upon to supply electricity for carriage warming. Either a diesel-generator set could be installed in place of the boiler or generators could be driven from the main engines. In the D800 class the two Maybach engines could, by the addition of intercooling equipment, be uprated by two or three hundred horsepower each and drive generators located in the present boiler compartment.

Building Technique

The building of the locomotives in Swindon shops could well form the subject of a whole book, written preferably by the works manager! As regards the underframe and body, a manufacturing technique entirely new to locomotive builders in this country had to be learned and applied. Sheet metal workers and welders were at a premium and the supervisory staff had to engage in a great deal of new thinking before the necessary instructions could be given to the shops. Jigs to facilitate the construction of underframe, body sides, roofs and nose ends had to be devised and made when requirements were fully known after the first locomotive had been built laboriously without such aids. Use of a large amount of electrical apparatus was also a new venture for the steam locomotive man, and electricians, too, were at a premium.

Maintenance, repair and testing of diesel engines and hydraulic transmissions, which are complex units by comparison with steam locomotive parts, necessitate a further great departure from established practice, although it is true, of course, that the works are not without some limited experience in this sphere as for years the building of diesel shunting locomotives and the repair of the associated power units has been carried out. Most of the shop equipment at Swindon, however, has been installed to meet the requirements of steam locomotives and the wholesale changeover to diesels means a major upheaval in this field alone.



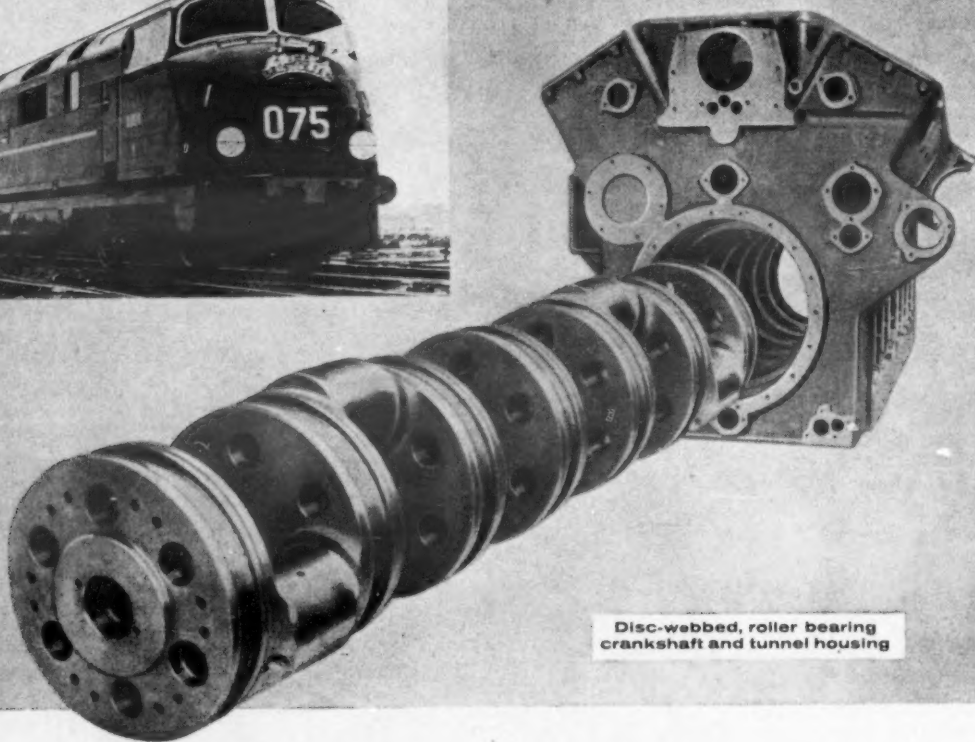
This further order for 75 Brush type 2 Diesel Electric Locomotives for British Railways comprises the largest single order placed with a private firm by the British Transport Commission for Diesel Electric Locomotives and will all be supplied before the end of 1960. The Brush type 2 is powered by Mirrored JVS 12T Diesel Engines of 1365 H.P.

Many in service on Eastern Region.
20 ordered 16th November, 1955.
40 ordered 3rd July, 1958.
20 ordered 3rd December, 1958.
Now 75 more.
Total 155.



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can achieve
16,000 hours between
major overhauls...



Disc-webbed, roller bearing
crankshaft and tunnel housing

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Bristol Siddeley Engines Limited produce Maybach* rail traction diesel engines. Covering a power range from 400 to 2,000 hp, these diesels are amazingly reliable and have shown that they can achieve major overhaul lives of 12,000 to 16,000 hours!

The proven basic design features of the whole range (straight 4 to 16-cylinder V) are the same, and each unit can be turbo-charged, or turbo-charged and intercooled. The range operates between 1,200 and 1,600 rpm and combines the best performance and design qualities of high, medium and low-speed diesel engines: light weight and compactness, excellent thermal efficiency and extremely long life.

Advanced design features

The pistons are pressure-oil cooled. This gives very efficient heat dissipation and reduces liner and gas ring wear to a minimum. The roller bearing, disc-webbed

crankshaft is exceptionally rigid within its tunnel housing, and in practice withdrawal is not normally necessary before 12,000 hours running. So low is big end bearing wear that in some cases the protective lead flash has been found to be intact when examined after 15,000 hours running!

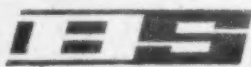
Since the cylinder bore and stroke, and the majority of components, are identical in all models, spares stocks are considerably reduced. Servicing also has been greatly simplified because much thought has been given to accessibility and the removal of components. And the engines are suitable for both hydraulic and electric transmission.

World-wide application

Maybach rail traction diesel engines are in service all over the world and have built up an unsurpassed record for reliable and economic operation. Bristol Siddeley Maybach engines power the new diesel hydraulic locomotives of British Railways Western Region and an additional order for a large number has just been placed.

For further information please write to: Maybach Sales Manager, Bristol Siddeley Engines Limited, PO Box 17, Coventry, England.

*Under licence from Maybach-Motorenbau GmbH



BRISTOL SIDDELEY ENGINES LIMITED

SOCIAL AND PERSONAL

Labour Transport Spokesmen

TRANSPORT suffered a particularly heavy loss in the ranks of Labour Party spokesmen as a result of the General Election and two new faces will speak for the party on the Opposition front bench. Last week Mr. Anthony Wedgwood Benn was named as principal front bench speaker, with Mr. R. Mellish as his deputy. Mr. Mellish was formerly a member of the Transport and General Workers Union and has frequently taken part in road transport debates.

Mr. J. Bonham-Carter, D.S.O., E.R.D., planning officer (electrification) in the office of the general manager, Eastern Region, has been appointed assistant general manager, Eastern Region, B.R., in succession to Mr. A. J. White, who has retired. Mr. Bonham-Carter was educated at Winchester College and King's College, Cambridge, where he graduated with first-class honours in the mechanical sciences tripos. He entered the service of the London and North Eastern Railway as a traffic apprentice in 1936. He joined H.M. Forces in September, 1939, and served in the Royal Tank Regiment throughout the war, being awarded the D.S.O. and was twice mentioned in dispatches. He also served for a period after the war in the



Mr. J. Bonham-Carter

Royal Engineers (Transportation) Supplementary Reserve. Mr. Bonham-Carter resumed duty in 1946. In September of that year he was appointed assistant district passenger manager, York, and in 1948 took over the post of assistant district goods manager, Manchester, which he held until November when he was appointed assistant district superintendent, Manchester. Mr. Bonham-Carter became assistant district operating superintendent, Eastern Area, London Midland Region, Nottingham, in 1950, district operating superintendent, Norwich, in 1952, and district operating superintendent, Cambridge, in 1954. He remained at Cambridge until July, 1955, when he returned to London as assistant (development) to the chief operating superintendent, Eastern Region, Liverpool Street. He was appointed planning officer (electrification), in the office of the general manager, Eastern Region, in December, 1956, which position he has vacated on taking up his new appointment.

We regret to announce the death of Captain William Hector Brown, chief marine superintendent, Home Line Fleet, British India Steam Navigation Co., Limited, at the early age of 56.

Mr. P. B. Johnson, assistant district passenger superintendent, Newcastle, has been appointed modernisation assistant, traffic manager's office, West Riding, Leeds, North Eastern Region, B.R.

Mr. K. O. G. Huntley, O.B.E., J.P., who is a solicitor, has been appointed to the board of Renault, Limited. Mr. J. G. Le Rougetel has been appointed general manager of the company after having been works manager at Acton since 1958.

The annual prize awarded by the British Electric Traction Co., Limited, to the candidate achieving the highest aggregate of marks in the Royal Society of Arts examinations for a diploma in road transport subjects, has been won by Mr. Harold W. Smith, a senior traffic assistant with Maidstone and District Motor Services, Limited.

Mr. J. R. McBeath has been appointed district traffic superintendent, Ayr, Scottish Region, B.R. Mr. McBeath joined the former London and North Eastern Railway as a clerk in 1935. He was appointed assistant district traffic superintendent at Ayr in 1956, and recently has been occupying temporarily the position of district traffic superintendent.

Mr. J. Dewar has been appointed district operating superintendent, Burntisland, Scottish Region, B.R. He entered the service of the former North British Railway as a clerk in 1910. In 1950 he was appointed assistant to the district operating superintendent at Burntisland and has recently been occupying temporarily the position of district operating superintendent.

Edgar Allen and Co., Limited, announces that Mr. F. S. Marsden has been appointed transport and traffic manager of the company from September 1 in succession to Mr. C. Shaw, whose retirement was recently reported. Mr. Marsden joined the company in 1916 and has been assistant manager of the transport department for over 30 years.

Mr. T. L. Booth, previously director and general manager of Hepworth and Grandage (Yeadon), Limited, has been appointed to the board of Hepworth and Grandage, Limited, the parent company. Mr. H. Forrest, director and works general manager of the Hepworth and Grandage main factory at Bradford, has been appointed to the board of Hepworth and Grandage (Yeadon), Limited.

We record with regret the death of Mr. James Bridger, M.B.E., D.C.M., formerly district traffic superintendent, London (Central) district, Southern Region, B.R., Redhill. He died at the age of 69. Starting his railway career as a telegraph learner at New Cross Gate in 1904, in 1935 he was appointed stationmaster at Guildford, and three years later stationmaster, Victoria, where he remained until 1943. His Redhill post dated from 1945 to 1955.

Mr. E. Goodfellow recently joined A.E.C. (Sales), Limited as area manager, South Wales. He was formerly with the B.E.T. organisation.

Mr. D. A. Harris, A.M.I.C.E., was recently appointed district engineer, Bangor, London Midland Region, B.R.

Mr. R. Ferguson, O.B.E., general manager since 1947 of the Marconi International Marine Communication Co., Limited, has been elected to the board and now becomes managing director of the company.

Mr. Pearson Armstrong, hitherto assistant regional establishment and staff officer, Western Region, as already recorded, has been appointed regional establishment and staff officer, Eastern Region, B.R., located at Liverpool Street. Mr. Armstrong entered the secretary's office of the North British Railway at Edinburgh in 1921. There followed various staff appointments on the L.N.E.R. in York or Edinburgh before, in 1945, he was appointed deputy staff assistant, and, in 1946, staff assistant to the operating superintendent, passenger manager and locomotive running superintendent, Scottish Area, L.N.E.R. On



Mr. P. Armstrong

nationalisation, Mr. Armstrong transferred to the headquarters of the Scottish Region at Glasgow as staff assistant to the operating superintendent and the motive power superintendent, where he was closely associated with the staff reorganisations arising from the fusion of the former L.N.E.R. and L.M.S.R. staffing arrangements in Scotland. In 1951 he was appointed assistant (wages staff), regional staff office, Western Region, and in 1957 assistant regional establishment and staff officer.

We record with regret the death of Mr. J. N. Bull, B.A.(Cantab.), A.M.I.Mech.E., locomotive works manager, St. Rollox, Scottish Region, B.R. He was 54.

The following London Midland Region staff appointments have been made:

Mr. W. O. Reynolds to be planning officer, Euston.
Mr. W. R. G. A. Haynes to be district operating superintendent, London (W).
Mr. D. Beattie to be district commercial manager, Leicester.
Mr. M. Harbottle to be district engineer, Derby (South).

Mr. D. M. Ball, formerly Eastern regional manager of Vauxhall Motors, Limited, has been made commercial vehicle sales manager. Mr. D. M. Unwin remains manager, fleet sales and Mr. P. E. Sanders is appointed manager, truck sales, and Mr. H. J. Ratcliffe manager, special model sales.

Mr. C. R. Coates has been appointed a director of Willowbrook, Limited and will continue as works manager of Willowbrook and Duple Motor Bodies (Midland), Limited. Mr. R. J. Richards, secretary of Duple, will become secretary of Willowbrook upon the retirement of Mr. F. E. Wharton on January 1, 1960.

For nearly 22 years a member of the head office staff of the Thornycroft organisation, and after 46 years in the commercial vehicle business, Mr. J. James has retired. He joined Thornycroft in 1937 from Armstrong-Saurer Commercial Vehicles, Limited, where he was sales manager. But in addition to his business activities he has for many years held offices of importance in associations allied with the transport industry. From the formation of the Traders Road Transport Association at the end of 1944 until 1955, he was one of its national vice-chairmen, and was a vice-chairman of the London and Home Counties division. In 1955 he was appointed to the office of national treasurer, which he held until earlier this year. Throughout this period he was one of the T.R.T.A. representatives on the council of the National Road Transport Federation, as well as a member of the N.R.T.F. vehicle committee and its chairman for three years. When several years ago the Federation council appointed a finance committee, Mr. James was appointed as the T.R.T.A. representative. In July this year he was elected an honorary member of the Association in recognition of his services.



Mr. J. James

Mr. E. W. Gain, B.Sc.(Eng.), A.M.I.C.E., previously a principal new works assistant, has been appointed an officer of London Transport Executive with the title of works and building engineer and Mr. F. S. P. Turner, A.M.I.C.E., also previously a principal new works assistant, has been appointed an officer with the title of assistant new works engineer.

The College of Air Training is controlled by a board of governors, of which the chairman is Captain J. W. G. James, O.B.E., A.F.R.Ae.S., M.Inst.T., flight operations and communications director, B.E.A., and the deputy chairman is Captain T. H. Farnsworth, A.F.R.Ae.S., M.S.L.A.E., chief of flight operations, B.O.A.C. Air Marshal Sir Hugh Walmsley, K.C.B., K.C.I.E., C.B.E., M.C., D.F.C., has been appointed principal of the college. (See page 9.)

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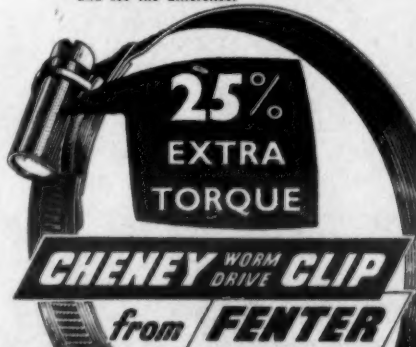
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IMPORTANT CONTRACTS

Dollar Orders for Two British Firms

TWO British firms, Ransomes and Rapier, Limited, Ipswich, and D. Napier and Son, Limited, London, have won substantial dollar-earning contracts during the past week in the face of stiff competition from United States companies. That awarded to Ransomes and Rapier by Calgary Power, Limited, Alberta, is for a large electrically driven walking dragline and is valued at 1½ million dollars. The machine is a new one in the Rapier range designed for open-pit mining; it weighs 1,400 tons and has a 33 cu. yd. bucket with a capacity of 50 tons at 215-ft. radius. The order is the first from North America for British equipment of this type. Viewed against the background of recent events, when Britain has been importing similar machines from the U.S.A. for its own open-pit operations, it is a clear indication of the advances made by Ransomes and Rapier, Limited, both in its technical development and in getting to understand Canadian requirements in this field.

Islands for Allegheny

The success by the Napier company (a member of the English Electric Group) is in an agreement signed between Allegheny Airlines and Napier Engines Inc. covering the purchase of five Convair 540 aircraft, which are powered by British-built Napier Eland 3,500-e.h.p. turboprop engines, with an option on 10 more. The order follows extended evaluation trials by Allegheny of a leased Convair 540, which, it is said, in 52-seat first-class configuration with capacity also for two tons of cargo, can achieve seat-mile costs below those possible with any other aircraft in comparable service.

Hong Kong Orders Commers

Orders have been received from the Far East by the Rootes Group for about 400 forward-control 30-cwt. vans, placed by two Rootes Group Hong Kong distributors, Gilman and Co., Limited, and Hong Kong Garage, Limited. The vehicles, some of which have been purchased by the Hong Kong Government, are also to be used for market garden and general trading work.

High Level of A.E.C. Mercury Sales

A.E.C., Limited, reports that sales of the versatile 12- and 14-ton Mercury goods chassis are running at a very high level. All types of operators are taking the opportunity of replacing their older vehicles with more economical new Mercurys and the weekly turnover for Mercury chassis alone is currently running at more than £150,000. The company also announces orders this week from South Africa worth £300,000 covering Monarch VI, Mandator, Marshal and Dumptruck vehicles.

Australian Gift of 100 Buses

A second gift of 100 British diesel buses has been made by the Australian Government to Indonesia under the Colombo Plan. The contract for the buses has again been placed with the Australian factory of Leyland Motors, Limited, which built the previous 100 buses supplied by the Government to Djakarta in 1956. Like their predecessors, the new buses will also be used on town services in Djakarta, under the control of the nationalised undertaking, Perusahaan Penangkutan Djakarta.

All the new buses will have Albion Aberdonian chassis, selected because of the greater floor area which its Leyland O350 underfloor engine allows. Parts of the chassis will be shipped by Leyland Motors to the new Australian headquarters at Melbourne, where they will be assembled with a number of Australian-made components. All-metal bodies, except for plastics rear roof dome and front and rear corner panels, will be built by Freighter Lawton Industries, in Melbourne.

1,000th Diesel Railcar from Derby

The thousandth diesel railcar to be built at Derby was equipped with B.U.T. engines and has now gone into service on the Wirral lines and not as stated in our last issue.

British Dynamometers for Sweden

Heenan and Froude, Limited, is to supply nine Heenan-Dynamometer dynamometers, varying in size from 150 to 500 b.h.p., to A. B. Volvo, the Swedish vehicle manufacturer. This is the second order from Scandinavia for the company in recent months, a Froude hydraulic dynamometer capable of testing engines up to 30,000 b.h.p. having been ordered recently by Burmeister and Wain, Copenhagen. Other recent orders placed with Heenan and Froude include one from Courtaulds, Limited, for more than 70 Heenan-Dynamometer variable-speed couplings; one for 13 couplings from Herbert Morris, Limited, of Loughborough, for use with the conveyors at the British Transport Commission's rail-welding plant at Motherwell; and one for nine couplings with control gear from Gridway Steel Construction Co., Limited, for use with banknote destruction conveyors at the Bank of England.

TENDERS INVITED

THE following items are extracted from the Board of Trade Special Register Service of Information. Inquiries should be addressed, quoting reference number where given, to the Export Services Branch, Board of Trade, Lecon House, Theobalds Road, London, W.C.1.

November 30—Portuguese East Africa.—Ports Railways and Transport Department for eight lots of LEAD-ACID BATTERIES and spares. Photocopies of tender documents from Export Services Branch, B.O.T., price 1s. (ESB/26761/59.)

December 3—Thailand.—State Railway of Thailand, Yod Se, Bangkok, for 1,000 sets of WHEELS and AXLES. Drawings available (Tender No. 02307), price Bht.30.00 per set, from the stores office, address above.

December 4—Chile.—Chilean State Railways for about 100,000 tons of RAILS AND ACCESSORIES. Photocopies of tender documents from Export Services Branch, B.O.T., price 8s. (ESB/26372/59.)

December 4—Union of South Africa.—Transvaal Provincial Administration for five heavy-duty crawler-mounted hydraulic front-end bucket-loaders, one similar bucket-loader on wheeled tractor and three heavy tandem diesel road rollers. Tenders to the Chairman, Transvaal Provincial Tender Board, P.O. Box 1040, Pretoria. (ESB/26715 and 26735/59.)

December 8—Canada.—Manitoba Hydro-Electric Board for one industrial DIESEL-ELECTRIC LOCOMOTIVE. Tractive effort 25,000 lb. at 5 m.p.h., capacity 2,175 tons in 25 cars up a 1 per cent gradient at 740 ft. A.M.S.L. in ambients from minus 40 deg. to plus 40 deg. C. round 350 ft. radius curves, speed 20 m.p.h. unloaded and 5 m.p.h. loaded. Tenders to Mr. D. M. Stephens, Chairman and General Manager, The Manitoba Hydro-Electric Board, P.O. Box 815, Winnipeg 1, Manitoba. (ESB/26451/59.)

Export Opportunity—Cuba.—Overseas Representatives, Calle 17, No. 415, Vedado, has informed the British Embassy at Havana that it has received inquiries for DIESEL ENGINES from 200 to 1,800 h.p. and is anxious to contact United Kingdom manufacturers able to supply this type of equipment. (ESB/26805/59.)

SHIPPING AND SHIPBUILDING

P.E.P. Views on the Industry

THE future of the British shipping industry depends on how far it is able and willing to make the effort needed to solve existing problems and face up to the challenge of new conditions. Such is the summing-up arrived at in a P.E.P. booklet, *The British Shipping Industry*, published on Monday. Elsewhere the booklet is harsh about what it regards as shortcomings in the efficiency of the industry. It says, for example, that it "is very much in the hands of particular families and there have been signs that managerial efficiency has not everywhere maintained the standards set by the pioneer members of these families nor achieved the standards common to the most progressive industries ashore." Then it goes on to modify this observation.

"There was a time when a father might well give a boy a ship to set him up in business on his own. With a new 18,000 deadweight ton tanker or 15,000-ton cargo-carrier costing every bit of £1,250,000, this is no longer a very practicable proposition. It is true that in almost every British shipping company there is still a very powerful family element, but the main business tends to fall more and more into the hands of the big combines. Leaving aside those small companies operating tugs and the companies engaged in the fishing industry the British shipping industry today is in the hands of some 270 companies. Taken altogether, these companies own 20 million tons of shipping; nearly six million tons is in the hands of 51 companies which themselves fall into nine or 10 main groups."

Conservatism has marked the British industry's attitude to new and experimental vessels, adds the pamphlet. "Three Scandinavian lines have developed a highly successful trade with Newcastle using pallets; but why should it have been the Scandinavians? Other nations have also led the way with the building of specialised carriers, container ships and roll-on roll-off ships, or the introduction of such special features as hydraulic hatch covers, the use of cranes instead of booms, and hold lighting for the working of cargo. The enterprise of the North Thames Gas Board in the transport of liquefied natural gas is contrasted. [Editorial comment on page 1.]

A Hundred Years of Cobh Calls

THE centenary of the Cunard service between Cobh and the United States and Canada fell on November 6, which was the hundredth anniversary of the inauguration of a regular transatlantic service by Cunarders to and from the Irish port. The first Cunarder to call there was the *Canada*, which sailed from Liverpool for Boston on November 5, 1859, and put in to embark passengers at Cobh the following day.

A Challenge to Top Management

PROPOSING the toast "British Shipping" at the annual dinner of the Chamber of Shipping of the United Kingdom, Mr. Ernest Marples, the Minister of Transport, said that it should be recorded to the credit of British shipping that it managed to cope with world trade without a subsidy from the Government. This might seem a

curious and strange doctrine to many others in the world. But to us it reflected the strength of purpose and the wonderful spirit which had always inspired our merchant navy.

Her Majesty's Government would and must continue to give shipping all the help it properly could give. They must never rest in their efforts to restrain other governments from discriminatory practices against our unsubsidised shipping and ceaselessly move to an expansion of world trade. "But governments alone are not enough. The present problem calls for great efforts and sturdy discipline from shipowners both nationally and internationally. British shipping industry has never failed in the past and I am confident it will make a superb effort now to meet the almost baffling problems which face it. What is wanted is a bold flexible imaginative policy at the top level of the shipping industry. Efficiency, toughness, resilience, and hard work are called for and I know they will not be called for in vain," declared Mr. Marples.

FINANCIAL RESULTS

NOTES on the trading results, dividends and financial provisions of companies associated with the transport industry are contained in this feature, together with details of share issues, acquisitions and company formations or reorganisations.

Shelvoke and Drewry

Shelvoke and Drewry, Limited, is declaring a final 10 per cent making 15 per cent for year ended July 31, 1959, on capital increased by one-for-two rights issue (same on old capital). Profit £113,682 (£98,145), before tax £48,960 (£52,321).

Dennis Brothers

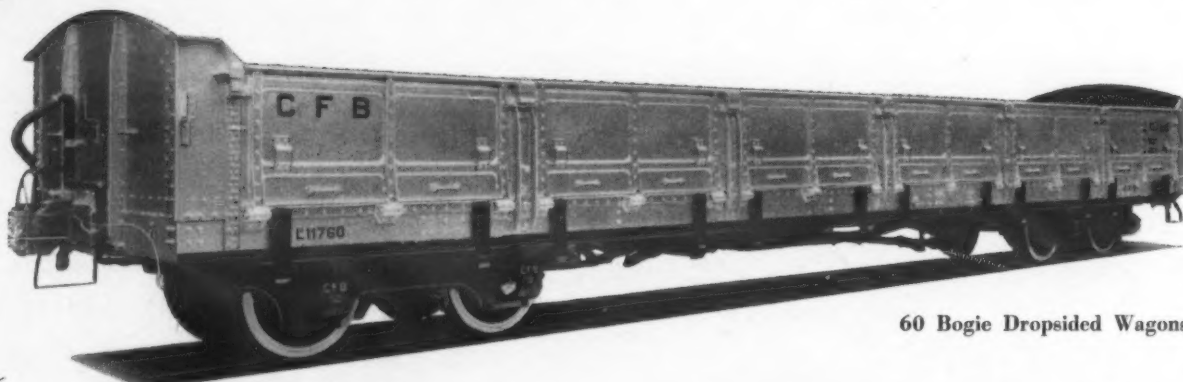
The directors of Dennis Brothers, Limited, recommend a final dividend of 5 per cent absorbing £23,007 (£21,596), making with the interim of 7½ per cent a total distribution of 12½ per cent for the year. Profits were £69,010 (£66,736) including £7,940 (£540) reserve for taxation no longer required; income tax £15,000 (£66,000); profits tax £4,500 (£20,500).

TYRES AT KELVIN HALL

(Continued from page 13)

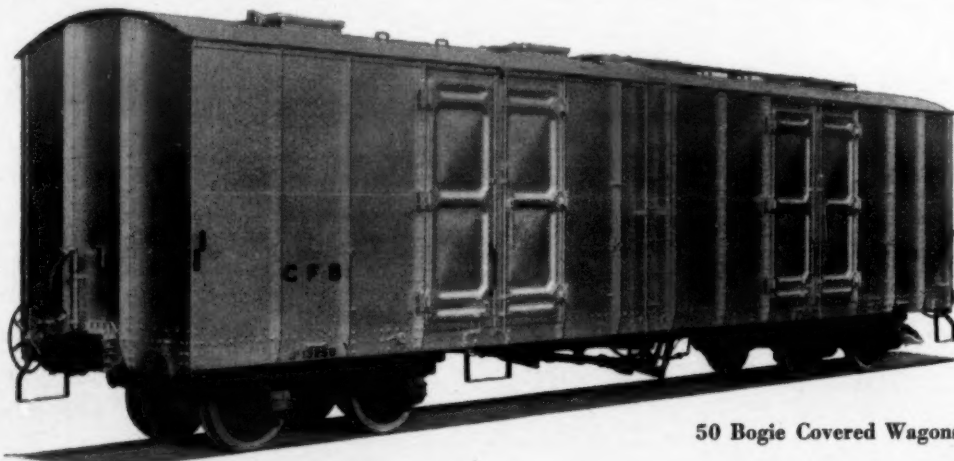
a ribbed tread pattern and improved tread compound developed for maximum life. Heat build-up caused by higher running speeds on motor roads is said to be reduced by slim tapering buttress design, which also spreads the stresses in the shoulder area over a greater depth of sidewall. The buttress terminates in a heavy kerbing rib to give added sidewall protection. The Trek Track dual-purpose tyre for on- or off-road service is also shown.

The stand of John Bull Rubber Co., Limited, carries a range of the new John Bull commercial vehicle tyres, which are now available in all the popular sizes. The John Bull Giant tyre has a casing of reinforced-rayon construction and continuous ribs with a staggered pattern designed to give high mileage, good traction and cool running. Also exhibited are a range of shaped and convoluted radiator hoses, fan belts, floor mats, snow grips and tubed and tubeless tyre repair equipment.

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